INDIA ANALYSED

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It is the growing, and not the decaying forces of society which create the most disquieting problems.

GRAHAM WALLAS

INDIA ANALYSED

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Some Particulars

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IV The Rule of Law ?
V The Reality of the Round Table Conference.

INDIA ANALYSED

VOLUME III
ECONOMIC ISSUES

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To

THE OXFORD UNIVERSITY GANDHI GROUP

IN WHOSE DISCUSSIONS THE NEED FOR

THIS SERIES WAS REALISED

F.M.B.
B.P.L.B.

EDITORS' PREFACE TO THE SERIES

THE AIM of the "India Analysed" series is to give in four volumes a picture of present-day India. The writers, English and Indian, who are best qualified to speak on the subject have been asked to contribute. The books do not seek to press any sectional point of view, but aim at producing a composite picture. Where the views expressed by the contributors differ from one another, it is left to the reader to appreciate the difference of opinion, to weigh the pros and cons as they are given to him, and to judge for himself.

We have attempted to provide an interesting and detailed account of the Indian situation to-day, and the forces that have gone to make it up, but an account that is neither too technical nor lacking in general interest. It is intended first and foremost for the man with an intelligent interest in Indian affairs who is not satisfied with the scrappy and often biased accounts he finds in the newspapers; and secondly for the student who will only find such material by spending time he can ill afford among a pile of Indian journals. The series, in fact, attempts to give an integrated picture of India by bringing together the views of those Indians and Englishmen who can speak with authority.

In Volume I., International, the contributors

have between them dealt objectively with the many facets of India's international life : her significance in the complex international situation to-day ; her relationship with members of the British Empire ; her position as a member of the League ; her importance as one of the rich fields for the activity of the International Labour Office. One chapter in this volume has been devoted to an entirely original line of enquiry, i.e. the discussion of the provisions which must be made in the framework of the Indian Constitution, while it is yet in the process of being made, which may in the fullness of time enable India to enter into international obligations without constitutional friction. This volume might be called "India in perspective." No study of India has so far been attempted from the international point of view on the lines of this volume.

From the general we come to the particular : from the panorama to the objects in the landscape. Volume II., Economic Facts, is an attempt to depict actual conditions in India to-day. The contributors are, with one exception, Indian, as we have judged Indians themselves most competent to speak of the economics of their own country. We have tried to cover as many aspects of Indian economic life as possible in a short volume : the produce of agriculture and industry, the condition of the peasant and labourer, and the position of India in the world market. One chapter specially deals with the potentialities which India possesses for her future industrial development.

Volume III., Economic Issues, deals with the urgent economic problems which face India at present and will face her in the future: first, internal problems such as the burden of taxation in relation to the social services which exist in India, and the part which foreign capital plays in the Indian capital market. In the second place, two chapters are devoted to the study of the external issues between England and India, such as the public debt of India, and the effects of linking the rupee to the £ when England went off the gold standard. These are real problems which need careful study by those who intend to follow the course of Indo-British relationship. Thirdly, in view of the predominance of agriculture in India's national economy, the closing chapter of the economic volumes deals with the potentialities of agriculture.

The fourth and last volume (Volume IV., Constitutional) gives an analysis of the Indian constitutional situation. On its historical side, one chapter shows the reader the structure of the Indian constitution to-day, another the relationship of the States with the Crown, the third gives a statement and discussion of the Minorities problem. These chapters make the reader realise the immensity of the problem. The last two chapters show how the British Government has tried to meet the situation. The chapter on law and order describes how the Indian nationalist aspirations were dealt with by extra-constitutional methods. The chapter on the

reality of the Round Table Conference shows how the firm hand was supplemented by consultation and efforts at constitutional advance.

We have edited this series in the belief that only by looking at the complexity of India from every side can a true idea of the immensity of the problem be achieved. If our efforts succeed in arousing both Indians and Englishmen to the gravity of the issues which are embittering the relationship of two great peoples, and if this series helps them to have a better groundwork of knowledge with which to tackle the grim problems before them, the work would not have been undertaken in vain.

FREDA M. BEDI,
B. P. L. BEDI.

CHART OF INDIAN MONEY AND NUMBERS

Money

1 rupee =	1*s.* 6*d.* (present ratio)
1 rupee =	16 annas
1 anna =	12 pies

Numbers

1 lakh written	1,00,000 =	one hundred thousand
10 lakh written	10,00,000 =	one million
1 crore written	1,00,00,000 =	ten millions

EDITORS' PREFACE TO VOLUME III., ECONOMIC ISSUES

MANY VITAL issues have been discussed in this volume, but, of necessity, these cannot cover the whole field of India's economic life. Therefore, we draw the reader's attention to the bibliography at the end of this volume. Besides suggesting further readings relating to the chapters, under the heading "General" we have collected other books which may be useful to the student of Indian conditions.

Just as the present volume stands in close relationship to Vols. II., Economic Facts, so should their bibliographies be considered as complementary to each other.

We acknowledge with thanks the suggestions sent by Dr. B. Ramchandra Rau and Prof. K. T. Shah for the bibliographies of their chapters.

Moreover, for the convenience of readers outside India, we have found it necessary to give a chart explaining Indian money and numbers.

F. M. B.,
B. P. L. B.

BERLIN-WANNSEE,
April 1934.

CONTENTS

1. TAXATION AND THE SOCIAL SERVICES

By A. N. MAINI

"ABLE AS EVER has been the Administration of India," said Disraeli at the time of the transfer of the Government of India to the Crown, "considerable and distinguished as have been the men whom that Administration has produced, and numerous as have been the great Captains, the clever Diplomats and the able Administrators of large districts with whom the Government has abounded, the state of the finance has always been involved in perplexity, and India that has produced so many great men seems never to have produced a Chancellor of the Exchequer."

I

Before attempting to analyse the Indian financial structure it is essential to acquaint oneself with the historical background. Here two separate and distinct trends have to be noticed. First of all, there is a gradual extension and application of democratic principles. The Act of 1858 provided that the financial as well as all other branches of administration

should be in the hands of the Governor-General in Council, subject to the ultimate control of the Secretary of State acting in association with the Council of India. From the time of the presentation of the first Indian Budget in a modern form in 1860, down to 1892, no discussion was permitted on the financial statement in the Legislature, and it was not even compulsory to present the Budget. The Act of 1892 gave the members of the Legislature the right to discuss the Budget, but not to divide upon it. After discussion by the Indian Legislature, the Budget was submitted to the Secretary of State, and then submitted by him to the British Parliament. This was a purely formal matter, and no vote was taken on individual items, owing to the fact that the expenses of the India Office and the salary of the Secretary of State for India were charged to the Indian revenue. The position was modified by the Indian Councils Act of 1909. The Imperial Indian Legislature was given power to move resolutions (in the form of recommendations), and to vote thereon with regard to all items in the class open for discussion. This system lasted until the introduction of the reforms in 1921.

The second point to be noticed may be described as the evolution of the Indian federation. The State in India is a federation, distinguished from the other federations of the

world by the fact that the component members are themselves the creation, and not the creators, of the common whole. Before 1870 all the revenue of India went into one purse, and the provinces were allotted for their annual expenditure only those sums which the Government of India thought fit, or which it could be persuaded or cajoled into granting. This state of affairs lasted until, in 1870, Lord Mayo introduced his scheme of decentralisation. As a result of this, certain services were handed over entirely to the Provinces. Departmental receipts on account of these services, plus an annual grant from the Central Government, formed the total revenue of the Provinces. After 1877 two further changes were introduced. The grants were made on a five-yearly, instead of an annual, basis, and, instead of fixed grants from the Central Government, the Provinces were given the receipts from certain defined sources: these were called "assigned revenues." The final balance between the Provincial receipts and expenditure was effected by means of an "adjusted assignment," whereby any deviation from what had been estimated, whether a surplus or a deficit, was equally shared between the Provincial and the Imperial Governments. After 1882–3, certain sources of revenue were shared between the Provinces and the Central Government; these, as a rule, consisted of such

items as the land revenue, excise, income tax, and profits from productive irrigation works. The Provincial Governments took the receipts from forests and registration, as well as from courts and jails, while to the Central Government went the revenue from customs, railways, post and telegraphs, salt, opium, and tributes from Indian States. Out of these incomings, the Central Government was responsible for defence charges, for the upkeep of railways and posts and telegraphs, for the payment of interest on debt, and for the home charges, while the Provinces met from their resources the expenses connected with land revenue, general administration, with forests, police, courts and jails, with education and material services. Charges for irrigation were common to both Provincial and Central Governments.

The main changes made by the reforms of 1919, which were put into force in 1921, were the redistribution without overlapping of all administrative functions between the Central and Provincial Governments and the division of Provincial matters into reserved and transferred subjects in order to hand over the latter to the sole control of Ministers dependent on, and responsible to, the elected representatives of the people in the Provincial Legislatures. The following chart gives a rough indication of the classification under the above heads:

Subjects under Central Control

Defence
Political matters
Railways
Posts and telegraphs
Customs
Income tax
Salt tax
Currency
Public debt
Mines
Central police (with certain exceptions)
All others not included in the list of Provincial Subjects

Provincial Subjects

Reserved	Transferred
Higher Education	Local self-government
Irrigation	Medical administration
Land revenue	Public health and sanitation
Famine relief	Primary and middle vernacular education
Forests (except Bombay)	Roads and tramways
Justice and police	Agriculture and fisheries
Development of industry and other industrial matters, etc.	Co-operation
	Excise, etc.

Under the new constitution, the Imperial Budget has to be passed by the two Chambers of the Central Legislature—that is to say, the Legislative Assembly and the Council of State, both of which have an elected majority. Proposals for expenditure are subject to discussion and are votable, with the exception of debt charges, salaries and pensions, expenditure prescribed by law, political, defence, and ecclesiastical expenditure. Over and above

this, there is the power of certification possessed by the Governor-General in Council. All financial proposals emanate from the Executive, which consists entirely of nominated members. In the Provinces, financial proposals relating to debt charges, certain salaries and pensions, etc., will not even have to be submitted to the Provincial Legislature. The Governor-General in Council possesses very wide powers of certification in the Provinces.

Furthermore, the former " Divided Heads " of revenue and expenditure have been entirely abolished, some having been made entirely Imperial, and the rest entirely Provincial. The re-arrangement entailed a heavy initial financial loss to the Central Government, which was compensated by an annual contribution from the Provinces, until the Imperial revenues increased sufficiently to render further contributions unnecessary. This arrangement was based on the recommendations of the Meston Committee. The Provinces have certain powers of borrowing and of imposing fresh taxation, and a share in the growth of revenue derived from income tax collected in the Provinces, so far as that growth is attributable to an increase in the amount of income assessed. The expenses of the India Office were transferred to the British Revenue. This means that Parliament now votes upon, and has the opportunity of criticising, the Indian Budget. The

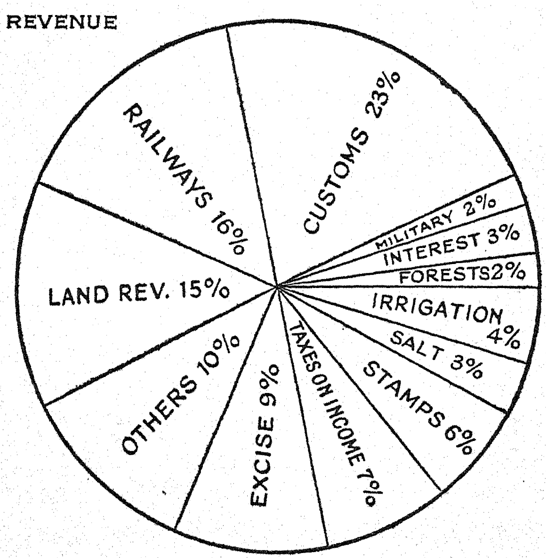
creation of the Provincial Loans Fund in 1925 has been of great value in enabling the Provincial Governments to borrow large sums on comparatively easy terms. Sir Basil Blackett, in his Budget speech of 1928–9, announced that the portion of the contributions which he had remitted temporarily for 1927–8 would henceforth be permanently remitted.

II

The above historical sketch should form a suitable preface to a further study of Indian taxation. In this section it is proposed to discuss the revenue aspect. The combined Indian revenue, Central and Provincial, 1929–30, was Rs.227,26,48,000. The percentages of the various items are represented overleaf.

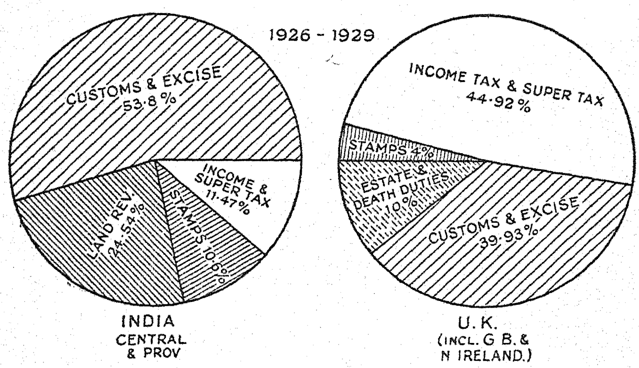
The next step is to submit the amount collected by taxation in India to the light of prevalent taxation theories, and see how far the system conforms to the ideal. The structure of the tax system of various countries is the result of several forces, and marked differences appear in the fiscal practices of modern States. Nevertheless, beneath all this one can perceive definite principles for an equitable distribution of the burden of taxation among the various classes composing the social unit. Among the various principles of taxation there is, perhaps, none which has found a wider measure of acceptance, in theory and in practice,

than the principle of taxation according to ability—that is to say, progressive taxation. The principle in practice turns upon an equitable distribution of the burden of taxation among the various income groups. Taxes may be direct or indirect. Direct taxes satisfy largely



the ideal of progressive taxation. Most indirect taxation results in the inequity of regression. The exact relation of direct and indirect taxation differs in various countries. In the case of India, it is submitted that the tax system suffers from the grave defect of regression, and thus falls far short of the ideal of distributive justice in the matter of the imposition of the tax

burden on the different classes in the community. In the charts below, the proportion of the direct and indirect taxation in India will be shown and the comparison made with the conditions prevalent in the United Kingdom. This comparison should bring out in sharp relief the marked difference in the proportions in the two countries.



Before proceeding any further, there is another point to be discussed with regard to the chart on India. Should land revenue be included as a tax in the schedule? If it be excluded, then the proportion between direct and indirect taxation will be altered. The Taxation Enquiry Committee of 1926 was unable to reach a definite conclusion as to whether land revenue was a tax or whether it was a rent in the economic sense of the term. The report seems to incline to the view that land revenue partakes of the nature of a

tax. If it is a tax, then there is hardly any room for the taxation of agricultural incomes, for the present rates vary between 20 and 40 per cent. If it is rent, then agricultural incomes are altogether exempt from taxation. Whatever the answer, one point is certain: that the incidence of the land revenue between the separate classes of land-holders should be adjusted. In some of the earlier settlements, permanent percentages were fixed, which, owing to the changes in the value of money, have become to-day merely nominal. The administration and incidence of land revenue are different from that of taxes on incomes in the following ways:

1. There is no exemption from land revenue, even for the tiniest holding amounting to less than an acre and with an annual income of Rs.20 or 30.

2. Except in the permanently settled districts, where the land revenue demand has been fixed in perpetuity since 1793, the revenue demand of the Government is a fixed proportion of economic rent.

3. The amount of land revenue is either fixed for ever (as in the permanently settled areas) or for twenty or forty years (as in other areas), and does not vary from year to year in response to the need of the State.

4. Most important of all, the State throughout

the whole of India provides irrigation facilities, agricultural loans, etc.

Whatever the answer to the above question may be—and in the near future it must be decided—the point that is evident from the charts on p. 23 is that the proportion of indirect taxes to total revenue is higher in India than in the United Kingdom. Not only this—if the figures of indirect taxes be further analysed, it is found that, whereas in England by far the largest proportion of the consumption taxes is derived from taxes on luxuries, in India a considerable part of the corresponding revenues is raised from the taxation of necessaries of life and the means of production.

1926–29	India	U.K.
Taxes on the necessaries of life and means of production as a percentage of the total customs and excise	42·19	14·36
Taxes on the necessaries of life and means of production as a percentage of total tax revenues .	29·84	5·59

In the spirit of the argument of Prof. Marshall in his Memorandum on the Fiscal Policy of International Trade, sec. 71, we may say that the above characteristic of Indian taxation is objectionable. Whereas consumption taxes on luxuries, like the income-tax, fall on the taxable "margins of income," taxes on the necessities of life and the means of production fall on the "beginnings of income." If one looks at the constituents of the various

income groups in India, the harshness of taxing necessities of income becomes evident. The taxes on the means of production encroach upon the business capital rather than business profits, and thus handicap the industries in their competition.

Beyond the regressive effect of indirect taxation in its dynamic effects, it has further injurious repercussions. This will be seen if the effect of the tax structure on the national dividend is observed. India of late has aggravated this position by pursuing further the fiscal policy of "discriminating protection." The term has not much scientific virtue, but is used as symbolic of the policy recommended by the Fiscal Commission of 1921. Let us follow step by step the effect of the imposition of a protective duty. Due to the imposition of the import duty, the consumer has to pay a higher price for the same commodity, irrespective of whether he purchases it at home or abroad. If he purchases the imported product, the difference between the old and the new price is contributed to the national exchequer. If he purchases the home product the difference becomes a subsidy to the indigenous producers. The net result is that all indirect taxes are regressive, and the protective duties effect a transference of wealth from the consumers to the entrepreneurs, investors, etc. In the words of Dr. Dalton in his *Inequality of*

Incomes, so long as the primary and urgent wants of life remain unsatisfied among the lower income groups, any reduction of inequality by a redistribution of the national dividend would tend to increase economic welfare, and, conversely, any increase of inequality through the same means would tend to diminish the aggregate of economic welfare. In the case of protective duties, transference, in the sense of the latter part of the above argument, does take place. A discussion of the effect of this transference on the structure of production will be outside the scope of this chapter. For our purpose it will be sufficient if the above analysis brings home to the reader the inequitable nature of Indian taxation.

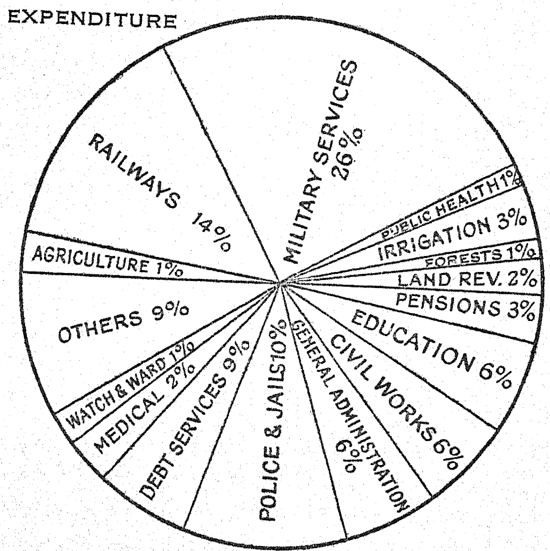
III

Let us now turn to the expenditure side of the Indian Budget. The chart overleaf shows the percentages of the total expenditure on the various heads. The total expenditure for 1929–30 was Rs.226,21,99,000. The chart includes both Central and Provincial expenditure.

In the analysis of expenditure we have to proceed very cautiously. Public expenditure is the effect of social organisation and national sentiment. It is directed by the ideals of national life adopted by, or imposed upon, a community, and limited by its available

resources. State expenditure and private expenditure differ in the following respects :

1. Careful estimates beforehand are essential in the case of State finances, from the very nature of the operations.



2. The individual is practically his own master.

3. In the public Budget, the part which is considered to be least admitting of variation is the side of expenditure.

4. The State admits no restraints on its actions save those of its own will. The objects for which the State makes such claims are

incapable always of an objective appraisement. If a proper balance is struck between the receipts and expenditure, it is all that the State desires.

We shall refrain here from pronouncing upon the suitability of any particular theory of public expenditure. There are so many different points of view and even then they are not always the free and spontaneous expression of the national life of the country. The ideals of national life are always changing. The militarist State, for example, will consider its expenditure on armaments on entirely different principles from those of the industrial, individualistic, or socialistic State. The nineteenth-century financial history of England, for instance, may be represented by a part of a speech made by Gladstone in 1861: "For my part, I am deeply convinced that all excess in the public expenditure beyond the legitimate wants of the country is not only a pecuniary waste . . . but a great political, and above all a great moral, evil." The whole question turns upon whether one is willing to recognise the State as a separate and distinct organism, possessing a life of its own and independent of the individuals composing it. In contemporary Europe it would seem that the notion of the supremacy of the State over the individual is being established. It is, however, difficult to say how far this "spiritualisation"

of the State is a permanent phenomenon. It has been suggested that the situation in Europe is only symptomatic of the reaction of the peoples to conditions of political and financial uncertainty. Whatever the ideal conception of State may be, the fact remains that, in the post-war period, even the non-interventionist States have come to undertake certain social functions: health, unemployment-relief, etc. Thus the U.S.A. had developed, until the outbreak of the war, on the lines of non-intervention, but the instinctive imperialism of a prosperous people has now asserted itself, even in America. France, the home of "Liberty, Equality, and Fraternity," is to-day the best example of a country where the State has extended immensely its scope of activity in the life of the people. The case of India is different. First of all, there is a curious political history. Financial control has been vested in people outside the country. Furthermore, how can an alien Government determine upon, or evolve, ideals of national life? The task is by no means easy. The British Government has followed the spirit of Lord Morley's theory of taxation of subject nations, i.e. to keep the level of taxation low. From the peculiar historic circumstances of India itself, a vigorous policy of schemes of social development has never been followed. Social services, in the sense that the term is used in Western countries, do not

exist. The fact that the conditions in India differ from the conditions prevailing in other countries does not preclude us from testing expenditure in the light of the economic welfare of the country. Financial statesmanship consists in minimising, and ultimately avoiding, all expenditure of a Western character, and in increasing and extending expenditure calculated to render a service, to confer a benefit, to bring in a more than proportionate material monetary return. Our purpose, then, is to discuss Indian expenditure purely from the financial statesmanship point of view, leaving aside entirely the question of the ethics of financial expenditure. Military expenditure heads the list, consuming 26 per cent of the total expenditure, including provincial expenditure. The next main head may be classified as expenditure on the maintenance of peace and order, i.e. police, general administration, pensions, etc. The third group may be termed expenditure on moral and material development, i.e. education, medicine, agriculture, post and telegraphs.

A discussion of all these items in detail would mean writing a monograph. For example, to criticise military expenditure would entail a discussion of economics of national defence and of the technique of modern warfare. However, attention should be called to a few glaring points. From the purely economic point of

view, is it not possible to maintain the same standard of defence with an entire Indian personnel? Further, the proportion of the total expenditure allocated to military purposes leaves very little for expenditure on nation-building proposals. Does not, then, this lead to the conclusion that this side of the Indian Budget requires drastic reconsideration? "Security" entails too great a sacrifice of possible means of social reform.

In fairness to the title of this chapter, something must be said about social services. The most important social services undertaken by the Indian Government are medical and educational. The Indian Government maintains a large staff of medical officers only for the benefit of its servants. Many of the officers are employed in sanitary duties, and not a few of them are in charge of important prisons. This service dates from the time of the East India Company. The division of the service between military and civil branches is only for the purposes of convenience, the Indian medical officers in civil employment being considered as temporarily placed. The control of public instruction is, as a rule, exercised by the Government through the Director of Public Instruction in each province. The Government, however, generally deals directly with such universities as there are on the questions of higher education. Affiliated with the university

or universities are the colleges, which prepare students for university examinations. Below the colleges come the high schools, which prepare students for the school-leaving or similar examinations, that qualify for admission into the lower branches of the public services. Side by side with the high schools are the middle schools, which teach the first few standards only of the secondary-school course. There are also in some places separate high and middle schools for girls. Below the secondary schools come the large number of primary schools, both for boys and girls, in which instruction is given, in the vernacular, to the vast mass of the people. As a rule the province is divided into a number of sub-divisions under the control of divisional inspectors, who are responsible for visiting the schools within their respective areas and reporting upon them to the Director of Public Instruction. Being concerned with the financial aspect, we shall not consider any of the other numerous problems of education in India, e.g. the alleged top-heaviness of Indian education, the question of the medium of instruction, or the introduction of religious and moral instruction. In 1930 the percentage of scholars to population in India was 4.8 per cent, out of which 1.8 per cent were females. The total expenditure from all sources on educational institutions in British India has increased from Rs.7,87,63,852

in 1911–12, to Rs.20,87,48,319 in 1924–25. The 1924–25 figures were made up as follows:

Provincial funds . .	Rs. 9,98,01,594
Local and municipal funds . .	2,73,26,096
Fees	4,68,63,182
Other sources	3,47,57,447
Total	Rs. 20,87,48,319

The percentage of population enrolled in elementary schools during the year is 2.83 per cent, as against 19.87 per cent in the United States of America, 16.52 per cent in England, 16.13 per cent in Germany, 13.9 per cent in France, 13.07 per cent in Japan. According to Professor K. T. Shah, the average expenditure in India on primary education is 6*d.* per head of population, whereas the figure for the United Kingdom is 15*s.*, and that for the United States 84*s.*; the figure for France is 11*s.* 6*d.*

After health and education, one could refer to certain other functions undertaken by the Government of India. Famine relief, from the modern point of view, is of historical importance only. The importance of irrigation cannot be ignored; but this is more of the nature of a public utility than of a social service. In the sphere of agricultural co-operation the State's action has been restricted to regulation rather than any active interference. Special facilities have been provided for the co-operative

societies, in the way of relief from income tax, special audit facilities, etc. The Government may be said to be chaperoning the co-operative movement. This is of importance because of its social repercussions in a country like India, which is mainly agricultural. It is on the developments in this industry that the future of India hinges.

In this section, up till now, no international comparisons have been made. The reason for this is obvious from the facts of the case. At first sight there might be great temptation to compare the expenditures of countries like India and Australia or Argentina. Comparisons of this nature are false, and vitiate all conclusions based on them. National temperaments and ideals differ. The formation of the various income groups within the community differs. Then the location and density of population are not the same in all countries. It is for that reason that no comparisons can be made. Contrast this with the case of revenue, where it is definitely possible to lay down principles as to the distribution of the burden of taxation, whatever the nature of the country concerned. India is an entity by itself. Its political history has moulded a system of finance which is a curious imitation of the doctrines prevalent in England. Starting with *laissez-faire*, there have been few attempts at intervention. The English administrators, being by nature

non-interventionists, have not been conspicuous by their efforts in the social services. The Indians have been the political disciples of England. Their ideas of civil and political freedom, as well as of constitutional government, have grown on the teachings of British history. Their political institutions, municipal and legislative, have been gradually assimilated in form and substance to the British model.

IV

Up till now we have reached a stage in our analysis where we ought to have a grasp of the historical development to the present day. The history has been traced. The revenue and expenditure have been dissected in their relation to incidence and burden. Any discussion of financial and allied problems would be incomplete if it did not contain a discussion of future policy. India is on the verge of a new political and constitutional era. The Round Table Conferences, with all the paraphernalia of committees, have been considering the constitutional problems of India. What form the Government of India Bill will take it is impossible to say. In this section we shall restrict ourselves to a discussion of the schemes that have been embodied in the White Paper and the relevant reports of sub-committees on federal finance. However, it is evident that,

whatever the final details may be, India is not, in effect, to be placed on a footing of equality and admitted as a co-partner in the British Commonwealth, and enjoy the same status of sovereignty as that of other Dominions. Budgetary safeguards mean that control is not to be transferred to the Indian elected body. The safeguards tentatively proposed by the Round Table Conference come to this. Over 90 per cent of the annual expenditure (nearly 100 crores) is in some form or another to be given a position precluding the legislature from not only giving a vote on it, but from offering even a discussion on it. The Army and External Relations Estimates are to be guaranteed for some transition period on a contract basis, during which period the legislature is to have no opportunity to propose economies and retrenchments. Next, to ensure the position of the Civil Services, another statutory provision is to be made, which is for an indefinite period to bind India to a heavy cost of administration, which for a federal government alone comes to the sum of about 5 crores a year. Furthermore, there is a suggestion of the creation of a statutory railway authority, presumably to function beyond the purview of the legislature. This covers a budgetary expenditure of at least 30 crores. Lastly, the ordinary interest charges of about 15 crores for pensions, superannuation allowances, etc., are not

subject to any vote. The Federal Structure Committee proposes to invest the Viceroy with extraordinary powers to impose by his executory fiat emergency taxes for any contingencies.

This is the financial relations aspect. We have still to consider the internal economics of the question. There is the problem of allocation of resources between the Centre and the Provinces. The Provinces are very dissatisfied with the existing allocation of resources. The Provincial Governments are in charge of nation-building activities on which there is unlimited scope for useful expenditure. As we have seen, the expenditure on education in every Province is inadequate, and the need for universal primary education is admitted by everybody. The evidence before the Muddiman Reforms and Enquiry Committee of 1924 clearly shows that the difficulties arising from finance have formed one of the main obstacles to the success of the reforms in the Provinces. The Davidson Committee has dealt with the position of the Indian States. This is a subject very complex in itself, requiring to be discussed separately. The Percy Committee has tackled, in a brave fashion, the dynamics of the Indian Budget on the basis of the findings of the Peel Committee. They had to estimate the total financial position of the Federal Government and the Provinces of British India in the early years of the

federation, and to suggest adjustments. Further, they had to advise on certain aspects of Federal finance. Their first step was to prepare a forecast of the revenue and expenditure of the Federal Government. Their report is based on the following assumptions, on the truth of which the finality of their suggestions depend.

1. The Percy Committee have assumed that Burma will be separated from India.

2. That the present depression will come to an end by 1935–6, and that there will follow a period of reviving trade, accompanied by a gradual increase of prices.

3. That there will be only one Budget for Federal and Central heads of revenue and expenditure, and not two.

4. That Bombay will not be responsible for Sind, which will be constituted as a separate Province, nor for Aden.

5. That the cuts in the pay of all servants which have been made for a limited period be withdrawn.

6. That special surcharges on customs, etc., at present in force will be discontinued. Owing to lack of information at the time, the following matters could not be provided for :

1. Additional expenditure directly due to the establishment of a Federal system.

Federal Forecast

Revenue		Lakhs Rs.
Customs	51,20	
Collection	90	
		50,30
Salt	6,70	
Expenditure	1,15	
		5,55
Opium	78	
Manufacture	73	
		5
Railways (net)		5,00
Currency and mint (net)		3,80
Miscellaneous		1,96
State contribution		74
Income tax	18,00	
Collection	80	
		17,20
Total revenue		84,60

Expenditure		Lakhs Rs.
Debt services		11,25
Interest and Sinking Fund		6,50
Posts and telegraphs		—
Military budget		47,00
Civil administration, incl. T. and P. pensions, but excl. other pensions and costs of collecting revenue and allowing 60 for provincialisation of accounts and audit		6,85
Pensions		2,65
N.W.F.P. subvention		1,00
Chief Comm. Provs. and Central areas	2,86	
Less revenue	1,31	
		1,55
Total expenditure		80,10
Surplus		4,50

2. The adjustment of the financial claims of the States.

3. Additional expenditure due to the creation of additional Provinces like Sind and Orissa. They have provided for the subvention from the central revenue to the newly created North-West Frontier Province.

4. The expenditure to be incurred on the constitution of a Federal Court.

In view of the necessary assumptions and omissions underlying their Budget forecast, Federal and Provincial, the Percy Committee have suggested that immediately before the establishment of the Federation their conclusions should be reviewed in the light of information then available. The forecast furnished for 1934–36 by the Committee is on p. 40.

The Percy Committee recommended that the Federal Government should levy an excise on matches, to yield 2,50 lakhs from British India and another 50 lakhs from factories situated in Indian States, the surplus to be utilised as follows:

1. 2,00 lakhs to expenditure on account of:
   (*a*) Adjustment of financial claims of the States.
   (*b*) Separation of Sind.
   (*c*) Establishment of a Federal system.

2. 5,00 lakhs to placing additional resources at the disposal of the Provinces.

The following table has been supplied as a forecast of the probable future position of each Government within the Federation :

Province	Surplus Lakh Rs.	Deficit Lakh Rs.
Madras		20
Bombay		65
Bengal		2,00
United Provinces .	25	
Punjab	30	
Bihar and Orissa .		70
Central Provinces .		17
Assam		65

It has been assumed that commercial stamps will not be federalised. The above report suffers from many drawbacks, as is only too obvious from the long list of assumptions. Although the figures may possess no scientific virtue, they are a good basis for discussion.

The White Paper goes further and gives a summary of the discussions of the Conferences, suggesting the following basis for the allocation of resources :

Source of Revenue	Power of Legislation	Allocation
Import duties except on salt Contributions from railways and other Federal commercial undertakings Coinage profits and share in the profits of the Reserve Bank	Exclusively Federal	Exclusively Federal
Export duties Salt Tobacco excise Other excise except liquor, drugs, and narcotics	Exclusively Federal	Federal, with a power to assign a share or whole to units

Source of Revenue	Power of Legislation	Allocation
Terminal taxes on goods and passengers Certain stamp duties	Exclusively Federal	Provincial, with power to Federation to impose a surcharge
Land revenue, excise, alcohol, drugs, and narcotics Stamps, with certain exceptions, forests and other Provincial commercial undertakings Miscellaneous sources of revenue at present enjoyed by the Provinces	Exclusively Provincial	Exclusively Provincial

The corporation tax will be entirely Federal. A prescribed percentage, not being less than 50 per cent and not more than 75 per cent of the net revenue derived from taxes on income (other than agricultural incomes) except taxes on the incomes of companies, will be assigned on a prescribed basis to the Governor's Provinces.

Proposals for the appropriation of revenue, if they relate to the heads of expenditure enumerated below, will not be submitted to the vote of either Chamber of the Legislature, but will be open to discussion in both Chambers (except in the case of the salary and allowances of the Governor-General, and of expenditure required for the discharge of the functions of the Crown in, and arising out of, its relation with the rulers of the Indian States):

1. Interest, Sinking Fund charges, and other expenditure regarding loans.

2. Salary, and allowances of the Governor-General, of Ministers, of the Governor-General's

councillors, of the financial adviser, of Chief Commissioners, etc.

3. Reserved departments.

4. Salaries and pensions of judges.

5. Expenditure for excluded areas.

6. Salaries and pensions payable to certain members of public services, or their dependents.

At the moment, a Joint Select Committee of both Houses of Parliament is discussing the above schemes, and the final arrangement will depend upon the Bill which will emerge from this Committee. Even if the schemes of the White Paper fully materialise, the Indians will not yet have the control of their own finances. Nevertheless, this is no argument for rejecting the offers contained in the White Paper. The new Constitution might become expensive to work, but it will result in a school where the future youth of India will be trained in the traditions of democracy.

2. BANKING AND FOREIGN INVESTMENT

By DR. B. RAMCHANDRA RAU

THE INDIAN BANKING SYSTEM differs radically from that of any other country, not only in its structure and working, but also in that it stands disorganised, without any attempt at planning to make it a compact and co-ordinated whole. The issue and regulation of currency stands rigidly isolated from the supply and management of credit provided by the banks. The vast size of the country, and the marked differences in the various economic regions, make it impossible to have centralised finance. The hackneyed remark that "Bombay rules economically, Madras intellectually, and Bengal emotionally the rest of India" is indeed too true a truism to be seriously disputed by anybody. This great measure of financial decentralisation has arisen solely out of the *laissez-faire* attitude of the State in the field of banking. Every attempt to create a central bank has been foiled, thus far. Most banking organisations operate as local bodies, unlike the big joint-stock banks of England. Mobilised reserves, unified system, common control, and

co-ordinated banking policy ought to be the primary aims of the banking reformer. These have to be secured to a great extent without at the same time making the banking system a Government affair, as it has been the case in the U.S.A.

THE FORMATION OF THE FEDERAL RESERVE BANK

Mahatma Gandhi, in his "infantile ignorance of monetary science," candidly confessed that nobody taught him the fundamentals of banking. Both among the general public and in the high places there has been comparative neglect of banking principles, with the result that the Indian nation has been paying too heavy a price for this colossal ignorance. Fifty ponderous tomes of banking literature have been produced by the recent banking committees, but it has not occurred to the nation that the needed proper action could be delayed no longer.

The unpardonable procrastination in starting the Federal Reserve Bank—though an improvement in Government credit, the diminution of floating debt, the balancing of the Budget, and the strengthening of India's reserves, have taken place quite recently (March 1933)—is indeed inexplicable.

THE REAL OBSTACLES

Though all parties have realised the economic importance of the Federal Reserve Bank, and pay lip homage to the fundamental principles underlying the constitution of it, the day-to-day nature of its internal working, which is to be free from political interference, the outlining of the broad policy by the Indian Legislature, no definite move could perhaps be made on account of the non-clearing of the world's economic horizon, the continuation of the world's financial crisis, the indecision still existing as regards the exchange ratio and the currency to which the rupee has to be permanently linked, the non-restoration of normal trade export surplus, the breakdown of the international gold standard monetary régime, and the recrudescence of communal feeling due to impending political reforms. As a cumulative result of the lack of a Central Reserve Bank and other banking ills,[1] modern India has been suffering cruelly from inelastic, unscientific, and inefficient currency which is not based on a thoroughly scientific and sound foundation. A Federal Reserve Bank of the right sort, free from unhealthy and injurious influence of London City opinion and concentrating its resources mainly for the benefit of the Indian banking organisation, controlling

[1] See my book *Present Day Banking in India*, chapter entitled "The Need for Banking Reform."

currency and credit in the economic interests of the country, regulating credit by acting as an efficient lender of the last resort, and watching the general evolution of banking on sound lines, has to be initiated as early as possible.

ORGANISATION

Organised as a State bank, with five crores of rupees as capital secured by floating debentures in the different regional areas, and with a suitable nominated predominantly Indian directorate representing agriculture, commerce, industry, insurance, banking, and business interests, the Federal Reserve Bank ought to have a branch in each regional area. Men possessing expert knowledge, broad outlook, wide experience, thorough earnestness, driving force, and perfect candidness, ought to be nominated by the State.

WHAT OF GOLD DEFICIENCY?

Starting with an external gold loan borrowed from the Bank of International Settlements,[1] every combined effort should be made to pool the existing available resources (gold stock and gold securities) in the different reserves which will be merged in the hands of the Federal Reserve Bank. Patriotic Indians should

[1] See my paper before the All-India Economic Conference, held at Delhi, January 1933. The different points of contact between the Federal Reserve Bank of ours and the Bank of International Settlements have been outlined.

surrender their gold bullion against bullion certificates issued by the Federal Reserve.[1]

A GLIMPSE OF ITS DAILY ADMINISTRATIVE ROUTINE

With member banks' mobilised reserve in its hands, an elastic note-issue and a comparative price or business stabilisation discount policy actuating the working of the Federal Reserve Bank, and an organised open market operations policy to supplement it, and with power to borrow abroad in the interests of the country, the Federal Reserve Bank can secure the development of a bill market, make provision of rediscount facilities, facilitate the creation of rupee bills, and lower the interest rates prevailing in the country. Confining its activities, as do most of the Central Banks of the other countries, to the indigenous members of the Indian money market, it can act as a successful bankers' bank, helping agriculture and industry at the same time by discounting agricultural bills of nine months' duration and concentrating within its own hands the power of floating debentures for land mortgage banks or the Provincial industrial corporations. Its statistical department

[1] If the World Economic Conference were to decide on adopting the "goods standard," our Federal Reserve Bank would have to evolve a monetary technique suitable to the efficient functioning of the "goods standard." See my paper, "The Goods Standard," *The Calcutta Review*, April 1933.

ought to gather a complete inventory of economic facts and figures which will enable the managing or governing authorities to shape the credit-controlling powers, with the view to achieving comparative stabilisation and the satisfactory maintenance of balances in the different economic activities of life, such as production, consumption, distribution, savings, and investment. Its rural credit department has to facilitate the smooth activities of the land mortgage banks. Its savings department would look after the successful investment of the rural savings organised by the postal offices. An earmarking of the funds would create the needed confidence that the provinces are not drained of their resources without receiving any corresponding advantages. The bullion department might be entrusted with the task of buying and selling gold at the accepted figures. Power to vary these prices in the event of an exchange crisis must be delegated to the managing board. Actuated with the ideal of securing free internal remittance, as in the United Kingdom, and providing the Secretary of State with needed sterling resources for making payment of our annual home charges, it ought to be a decisive power in the exchange market. The reinstatement of free transfer of funds from one branch to another branch, in the case of all its constituent member banks, should be inaugurated, however

adversely the money order business of the post office might be affected. The Issue Department would undertake the handling of gold reserve, gold securities, and the commercial collateral against which notes can be issued on the principle of Proportional Reserve System. With the ideal of dispensing with the unduly large holding of unstable silver, the Federal Reserve Bank should aim at unloading it gradually in the closed market of this country. The Indian gold holdings ought to come up to 85 per cent of the entire gold stock.[1] The Banking Department, which would include all the above departments except the Issue Department, would look after its relations with the Joint Stock Banks, the Imperial Bank, the indigenous bankers, and the Indian immigrant banks, if any of them were to exist without being Indianised in the near future. The opening of branches might be facilitated by the depositing of interest-free Government deposits in certain selected Indian Joint Stock Banks, subject to certain maximum interest rates at which they might be lent. These depository banks can conduct treasury work

[1] Following the suggestions of Dr. L. J. A. Trip, Mr. Manu Subedar recommends that the Federal Reserve Bank should secure the monopoly of importing gold bullion into the country. Both the writers tend to exaggerate the importance of gold reserves which, after all, are needed to settle international obligations alone. Gold is not, after all, necessary as a backing for currency. Its supposed efficacy in checking inflation is purely illusory. If the Central Bank or the Legislature expands the currency, real inflation would ensue.

along with the Imperial Bank of India, who would secure the bulk of this business. The undertaking of public enterprise at crucial times by Federal Reserve Bank credit has also to be considered in the interests of comparative stabilisation of business, credit, and purchasing power. Complete co-ordination of bank credit policies and Government financial policies should be secured, and be the corner-stone of its actual working.

DANGERS AHEAD

Besides the difficulty of transferring the note-issue powers, the lack of a discount market, absence of bill-habit, the inelastic demand for loans in an agricultural country, the opposition or disloyalty of the immigrant banks, and the inherent impossibility of securing price stabilisation by judicious use of bank-rate and open-market operations, would delimit the successful working of the Federal Reserve Bank.

ULTIMATE ADVANTAGES

In the long run the monopoly of the immigrant banks can be broken down by helping the competing local exchange banks. It would prevent the recurrence of a banking crisis, as in the 1913–15 period. Even granted that it acts in the orthodox manner and retains the functional simplicity of the Bank of England as its guiding model, our Federal Reserve Bank

can improve the remittance business of the Government, provide the rediscount facilities for the commercial banks, manage the currency and credit system of the country, and perform treasury business on strictly intelligent principles. It would spread the banking net far and wide. It would increase the use of the credit instruments, develop bank acceptance, encourage the deposit habit and the training of men fit to run banking institutions. But to secure even these simple benefits it has to fight against tremendous odds, the most prominent of which are popular apathy and ignorance and the jealousy of the foreign exchange banks. If it pursues a bold, active, forceful, and energetic policy, there is no reason to doubt that it will eventually occupy its rightful place in the Indian money market.

Realising full well that currency needed in the country depends on the amount of credit, the fundamental duty of the Federal Reserve Bank is to determine the general direction of credit policy first, and then adjust the supply of currency to the credit created. This can best be done if credit management is done in the interests of the economic system. The volume of currency can easily be adjusted if the Federal Reserve Bank is empowered to issue any amount of fiduciary currency without the special backing of gold reserve being maintained against it.

Finally, this managed system of credit and currency must pay heed to national considerations and internal requirements alone. Regard to international complications ought not to sway the above policy. The dictating of the credit policy of the banking world as a whole is surely beyond the scope of our Federal Reserve Bank. Stabilising internal prices as a whole, it ought to be our endeavour to confer short-term stability of rates of exchange, so that traders might not be inconvenienced. At the present stage of statistical knowledge it is impossible to determine exactly how much money would be required, and produce that much alone—no more and no less.

INDUSTRIAL BANKING

Good, bad, or indifferent, there is some kind of industrial financing in India, but for a properly diversified industrial development, making use of the bountiful raw-material supplies of the country, industrial banking has to be inaugurated.

The foreign banking experts of the Central Banking Enquiry Committee opine that "internal block" as well as normal "working capital" has to be secured by "the industrialist himself, or by the firm's own capital subscription." Commercial bank credit can at best supplement the extra capital needed in the busy season.

Another ideal arrangement which the foreign banking experts advocate is complete non-interference on the part of the Government with industrial activity. Quoting the dismal experience of the Provincial Governments in the matter of their State aid to industries, they hazard the unwarranted remark that "where a system of extensive aid in economic life has been introduced it has proved a failure." Barring the "pioneering" of industries, the State has nothing further to do with industrial initiative or enterprise. If help at all to new industrial activity has to be furnished, it has to be done "by taking up the share capital alone."

It is indeed a pity that their remarks have stood unchallenged, so far, at the hands of Indian economic or banking circles. German industrial banking activity has been interpreted aright. It is known to all students of German banking that "there has been no specialising industrial bank in Germany." The starting of new industries might not be the *prima facie* business of the *post-war* German mixed credit banks. The development of sympathetic industrial financing which is existing in Germany will not solve our problem.

The foreign experts have evidently forgotten how the post-war economic recovery of Germany has been secured as a result of State and municipal activity. In public enterprises, so

vital for economic welfare, the State has formed Joint Stock Companies, and has managed the industrial activity on a purely business basis. Apart from industrial business activity, the German Government has wide powers in wage determination and adjudication of labour disputes, and a widespread social insurance system. Besides this active part in business and industrial life, Germany has developed the holding company known as V.I.A.G. ; or, to give it its full name, it is known as the Vereinigte Industire-Unternehmungen Aktiengesellschaft. It is a company with a capital of 120 million marks. Its enterprises include besides the bank, the accounting firm, electricity, gas, aluminium, nitrate, iron and machinery enterprises and a steamship company. About fifteen per cent of the entire economic activity of German life is in the hands of the various Governments.[1]

The self-same lesson of Governmental industrial activity can be grasped from a study of the Italian industry. The Institute Mobiliare Italiano has been recently started for making loans, for a period not exceeding ten years, to Italian enterprises of a private character, and the acquiring of shares in such undertakings. It is meant to solve the twin problems of industrial finance and banking stability at the same time.

It is not the practical experience of these two

[1] See J. W. Angell, *The Recovery of Germany*.

countries which disproves the tenets of reasoning of the foreign banking experts, but the high weight of authority of the Macmillan Committee can be adduced in favour of starting industrial banks. "The function of an industrial bank is to act as financial adviser to existing industrial companies; advise in particular as to the provision of permanent capital, its amounts and types; secure the underwriting of, and issuing, the company's securities to the public, if necessary; assist previously in arranging for the provision of temporary finance in anticipation of an issue; assist in financing long-term contracts at home and abroad or new developments of the existing companies, or found companies for entirely new enterprises; act as intermediaries and financial advisers in the case of mergers or in the case of negotiations with corresponding international groups, and generally be free to carry out all types of financing business." Here is a clear-cut definition of the duties of an industrial bank. As industrial banking involves long-term locking-up of capital, it should have substantial capital, issue its own debentures or short-term notes, co-operate with other financing bodies, and build up a competent and expert staff, establish gradual connections with industry, and instil confidence in its issuing ability and credit. Such an ideal type of industrial bank can be organised by the

willing co-operation of existing banks and private bodies. But, lacking experience and a sound policy of banking, which eschews speculation altogether, it is impossible for such a privately organised bank to succeed.

Unless India determines which type of social and political philosophy she cares to adopt, nothing definite as regards the attitude of the Indian State towards organised industrial activity can be foreshadowed. A continuance of the *laissez-faire* traditions means the free play of the forces of private capitalism. If paternalistic State Socialism, which is the order of the day in all civilised countries, is advocated, and if the preconceived belief that the average Government enterprise is less efficient, less progressive, and more costly than private enterprise is forgotten, the Indian people have to decide what useful part the State has to play in the industrial and economic life of the people. State railway management and the State post office have become well known to the Indian public. Every natural industrial monopoly, and large public utilities such as electric power resources, have to be worked under State ownership and control. The holding company or managing trust form of enterprise has to be built up.

The present-day methods of industrial financing by the attracting of deposits from the public or the managing agent's financing

methods, or the securing of short-term advances from the Indian Joint Stock Banks, have to be changed. Even though the savings of the people might be willingly deposited in the hands of industrial companies, such as cotton mills, still it depends on the ability of the managing agents to secure and retain the deposits. The most peculiar thing for which there is no parallel in any banking system of the world is the Indian managing agency system, which concerns itself in financing, promoting, and controlling the industrial companies. Almost like the mixed banks of the Continental type, they have hitherto acted as the issue houses, company promoters, and industrial financiers. Owing to inefficient direction, lack of technical industrial skill, absence of commercial banking facilities, lack of ample resources, lack of touch with investing public, selfish greed in securing high profits for themselves and promotion for their kith and kin, no great extension, or speedy and sound industrial development, could ensue under their care. As the short-term demand loans on the part of the commercial banks are not freely granted and allowed to remain undisturbed in the hands of industrialists, there would not be any assurance that successful industrial financing could be developed out of existing commercial banks. Perhaps a change in the methods of Indian business organisation and the personnel of the

bank staff would secure some benefit. But a long-term loan would mean a frozen asset, and endanger the liquidity of resources of commercial banks.

Some of the industrial Provinces might have State-aided industrial corporations, and the all-India industrial board might act as a connecting-link. The recent exports of gold are sufficient indication that capital can become available to indigenous industrial enterprise at a reasonable rate of interest, provided sufficient guarantee is forthcoming that a definite industrial policy, consonant with the national aspirations of the country, is being developed. The lack of fixed or working capital on the part of present-day organised industries can be remedied by the floating of debentures with a guaranteed rate of interest. The provision of expert industrial staffs to examine industrial propositions would go a long way in the creation of the needed confidence, and the investment of capital would become all the more easy with some amount of further education on the part of the people. While the provision of initial capital can be solved by the new industrial corporations, the discounting of short-term bills and lending on stocks of goods properly warehoused would easily solve the problem of securing working capital for any of the organised industries started by the industrial corporation.

The financing of the smaller and middle-sized industries can be easily taken up by improving the State Aid to Industries Act in all Provinces. The present-day managing of the loaning side of the industries department needs great improvement by the much-needed addition of technical experts, business organisers, and bankers. The financing of the cottage industries can be undertaken through the same department. Actual financial aid has to be administered through co-operative urban banks, which would have to be started in increasing numbers of urban centres. The Government has to furnish aid in the matter of propaganda, demonstration, and technical assistance. A proper liaison between the industrial, co-operative, and agricultural departments would facilitate this work. Improved scientific and technical education and marketing facilities would solve the financial side of the problem in most cases. Provincial emporiums of arts and crafts industries would be a desideratum. As the present-day entrepreneur merchants and moneylenders are "fair-weather friends," their domination of the artisan has to be eliminated if the resurrection of arts and crafts industries of the country can hope to take place at all.

So long as the period of falling prices and heavy depression is continuing it is advisable that the State should delay the formation of

industrial corporations. Nothing is more important than that of a definite industrial policy being developed, for without such a helpful attitude the dumping of products by a foreign firm would easily destroy the locally manufactured ones. More finance, better finance, a definite industrial policy, and an organic relation between industry and State, are the *sine qua non* for the growth of Indian industrial enterprises under Indian control commensurate with the available resources, labour supply, great variety of the climate, abundantly rich and diversified raw materials of the country. The general improvement in banking which is bound to ensue as a result of the successful working of the Federal Reserve Bank would react favourably on Indian industrial enterprise.

INDIGENOUS BANKING AGENCIES

Coming to purely indigenous banking, the Joint Stock Banks and the indigenous banker form only an insignificant part of the Indian banking organisation. Foreign control, capital, and management of banking policy in the matter of immigrant banks and the Imperial Bank of India is too patent to be seriously disputed by any competent objective student of Indian banking. Co-operative credit banks, land mortgage banks, loan offices, and *nidhis*, which can be reckoned as other indigenous agencies, are still in an infant stage.

There are roughly seventy-eight Indian Joint Stock Banks, officially subdivided into two classes : (1) Thirty-three possess more capital and reserve than Rs.5 lakhs ; (2) Forty-five possess a paid-up capital and reserve between Rs.1 lakh and 5 lakhs. These possess 31 per cent of the total banking deposits of the nation, while the foreign-managed banks control 69 per cent of the total deposits, which amount to 212 crores of rupees. As almost all conditions are now becoming favourable to the expansion of commercial banking—viz. an increase in the available capital and deposits, expanding volume and requirements of trade and commerce, and increasing number of capable and honest people to do banking business on sound lines —the Indian Joint Stock Banks have to make every effort to increase their utility and secure better economic progress of the country.

MEANS OF EXPANSION

Apart from the fact that the existing Joint Stock Banks can easily increase their size by amalgamating with smaller bodies, or by forming affiliates of the type of Kommanditen with the private indigenous bankers of the country, there is the possibility of increasing the capital resources so as to create efficient banking institutions capable of undertaking the financing of internal and external trade at the same time. Better and more sympathetic

relations with existing industries have also to be evolved. More efficient Joint Stock Banks, working under the fostering guidance of the Federal Reserve Bank, can secure marked qualitative and quantitative improvement in the field of credit organisation. An excessive holding of Government securities has unfortunately tended, in the absence of open market operations of the Federal Reserve Bank, to cause them grave anxiety.

Now that uneconomic competition at the hands of the Imperial Bank, the immigrant banks, and the co-operative banks does not exist, the ideal of co-ordinated and not competitive banking between the different institutions has to be worked out in actual practice.[1] The payment of a high deposit rate of interest, which cannot be successfully earned by pure banking business, has to be checked by the formation of a bank cartel on lines which exist in France. By thoroughly reorganising their internal administrative work, the Joint Stock Banks can secure prompt external aid in the direction of such useful Government measures as a wise and enlightened public debt policy and helpful legislation. The co-operation on the part of the depositing public, quasi-public authorities, and the borrowing customers, and close co-operation amongst the bankers, would

[1] See my paper, "The Future Outlook of the Joint Stock Banks," *Calcutta Review*, May and June Nos., 1930.

improve their situation. A strictly scientific policy in the sale of Treasury bills, the facilitation of amalgamation tendency by removing unnecessary and heavy stamp duties, taxes, and the formation of a Federal Reserve Bank, would confer inestimable advantages.

A careful scrutiny by the Federal Reserve Bank, which would be made at the time of rediscounting the eligible commercial paper, would automatically raise the standard of banking. The very example of its conservative management would act as an elixir or life-giving tonic. Its educative influence would make the Joint Stock Banks more progressive than at present. Realising full well that the progress of certain Joint Stock Banks was solely due to the helpful attitude of the Native States, it can easily be recommended that a similar and definite policy of encouraging Joint Stock Banks ought to be initiated. The grant of free transfer of funds from one branch of the Federal Reserve Bank to another; same remittance facilities, as in the case of co-operative banks; special rediscount facilities at the hands of the Federal Reserve Bank, and other helpful measures such as the institution of country-wide clearing facilities, would encourage the existing Joint Stock Banks. The present-day Indian Joint Stock Banks would then be regarded as instinctive nationalistic institutions endowed with the trust of the

community. With greater stability, diversity, economy, and management, and increasing resources, the indirect financing of agricultural interests through approved indigenous bankers, or the financing of the artisans purely on the personal knowledge of the indigenous bankers, can provide an outlet for additional funds. The real problem of the present-day dual Indian banking system is to secure to the larger Indian Joint Stock Banks power so as to enable them to control the numerous smaller indigenous bankers and the wily and unscrupulous local or Pathan moneylenders. They should be controlled in their turn by the central bank of issue. Such unity and organic relationship would lead to the much-needed concentration of resources, and develop a highly integrated banking system. The modernised Indian banking system has failed to function adequately, as it comprehends within it only a limited portion of the banks and leaves the smaller indigenous bankers, smaller banking institutions—whose aggregate resources are nevertheless so considerable—outside the ægis of the organised banking system. This is the reason why the Indian banking system could not be reformed earlier. Banking progress has been a slow and painful growth. Other measures, such as Usury Acts, have alike failed to check the callous depredations of the moneylenders. Even registration of moneylenders

and regulation of interest rates would be of no marked avail. The right solution of the credit problem is, indeed, the increase of improved banking facilities. The power of evil finance has to be scotched. An all-round development of the pure indigenous banking agencies is the panacea in this direction. Following the policy of the business departments of the big American banks, the Indian Joint Stock Banks ought to find new connections, not only by advertising, by the issuing of periodicals, publications, calendars, and so forth, but by canvassing among firms of importance. Conversant with the occurrences in the economic world, the opportunity to secure foreign business transactions, such as the acceptance of tendered contracts, would have to be offered to the Indian customers. Commercial transactions have thus to be initiated by the business departments of the overseas banks of this country. The lack of foreign branches delimit any activity of this kind, but the above suggestion indicates the scope for their future expansion.

THE INDIGENOUS BANKER

Variously known as the *bania*, the *saukar*, the *mahajan*, the *shroff*, the *marwari*, the *multani*, the *chetti*, *nattukottai chetti*, the *arora*, and the *rahty* in the different places of this vast sub-continent, the indigenous bankers have been

functioning since olden times, always performing the various financial and economic needs of the country.[1] It has become habitual to state that the foreign and the internal trade of India was performed by them, and they derived a lot of profit from this source. Besides moneylending at high rates of interest, they aided revenue collection. Moneychanging business was done through the indigenous bankers. The gradual decline of their importance set in as a result of the starting of the European banks and the agency houses. Since the beginning of the nineteenth century they have begun financing the agricultural industry, the cottage industry, and the internal trade of the country. Without specialising in the function of attracting deposits and issuing cheques or note currency on a large scale, extensive moneylending is done even on borrowed resources. The granting of remittance facilities by *hundi* business and the discounting of *hundies* is also losing ground. The process of actual elimination from the modern banking stage would have become an assured fact, as in Western countries, but for their rich, time-honoured traditions and successful combination of banking business with trading, mercantile, and commission business. But, on account of their antiquated methods, the rise of Joint Stock Banks and co-operative

[1] See my paper, *Some Specific Services of the Indigenous Bankers of Bombay*, Paper read before the Indian Historical Records Commission, Gwalior ; 1930.

banks, the provision of cheap remittance facilities and the unification of currency, they are steadily losing their ground. They have already become dependent on the over-borrowing limits granted to them by the Indian Joint Stock Banks. The trader's *hundies* are rediscounted by the Joint Stock Banks only after they have been endorsed by the indigenous bankers.

Even the original discount business of trader's *hundies* cannot be statistically ascertained, but a rough idea can be gained if it is known that the Imperial Bank does not secure *hundies* of more than six crores, and Sec. 20 of Act X. of 1923 is not sometimes fully utilised in the busy season. The total absence of a native discount market is indeed a deplorable feature, and until the habits of internal traders, agriculturists, and merchants are changed the possibility of developing an active discount market is indeed remote. The lack of organic touch between the indigenous banks and the modernised Joint Stock Banks means that no uniform money rates exist in the different sections of the money market.

The modernisation of indigenous banking business and the developing of these into real financial intermediaries between the organised money market and the ultimate borrowers has to be accomplished. They have to take their proper place in the Indian banking system by reforming themselves and their business methods.

As the Central Banking Enquiry Committee says, " They have to bring their system of operations more into line with the customs and practices of commercial banks in the matter of audit and accounts, use of bills and cheques, prompt payment and receipt of moneys, and conduct of business strictly in accordance with legal requirements." The Bank of Chettinad is a glorious example of a modernised indigenous banking firm.

The reconstruction of indigenous banking has been variously outlined by the different Provincial Banking Committees and the Central Banking Enquiry Committee. All of them incline to the opinion that the mere granting of additional facilities at the hands of the Federal Reserve Bank, the Joint Stock Banks, their forsaking of combined banking-cum-trading business, the modernisation of their banking operations in deposit-attracting, discounting of trade bills, and undertaking of agency work on behalf of bigger Joint Stock Banks, are some of the suggested remedies. These do not go to the root of the matter. For the stabilisation of the indigenous banking business the registration of these modernised private bankers ought to be undertaken, and it is such registered bankers[1] who ought to

[1] See my paper on " Register of Bankers, Central Bank of India," *Monthly Notes*, April 1931. Mr. V. Ramadas Pautulu, in his Minute to the Report of the Central Bank Enquiry Committee, endorses this suggestion.

enjoy all the rights and responsibilities of the banking profession as are properly defined in the Bank Act. The modernised indigenous banker can secure the development of the bill market, lower the onerously high interest rates, perfect the credit organisation of the country by acting as the "missing link" between the different money markets, and facilitate the economic development of the country. Although these ulterior benefits can be realised, the factors contributing to their slow decline, such as loss of bill or *hundi* business[1] and agency business due to export firms having their own branches, have to be tackled.

The increase of trade bills, the imparting of knowledge in the matter of discounting trade bills, the changing of the financing methods of internal trade, and other contributory methods for popularising the bill habit have to be undertaken at the same time. These methods will enable them to play an important part in the national economy of the country. The present-day indigenous

[1] A *hundi* may be drawn to raise a loan; i.e. it partakes of the character of a finance bill. It may be used for financing trade when it approximates to the bill of exchange. It may be used for remittance purposes, and sometimes, if these bankers have surplus cash which they require to remit to another place, a premium may be paid instead of discount deducted. The lack of standardisation, the use of vernacular, and the varied local usages stand in the way of their popularity. While efforts should be made to standardise the *hundi*, the development of trade acceptance by educating the business men ought not to be forgotten, and this would eliminate the chief danger behind most of the *hundies*.

bankers who are conducting other avocations will have to forsake them and become bankers *qua* bankers. Without forsaking their economy in management and sacrificing their personal touch with their customers, these pure indigenous bankers can easily develop into small Joint Stock Banks run on really cheap, vital, and progressive lines. In view of the impossibility or limited chances of rapidly multiplying the country branches of existing Joint Stock Banks, nothing is so essential for banking development as the modernisation of the indigenous bankers.

AGRICULTURAL AND LAND MORTGAGE BANKS

It need not be emphasised that a predominantly agricultural country like India should have a proper system of agricultural financing, making due provision for current, short-term, intermediate, and long-term requirements of agriculture. Apart from this, the Indian agriculturists who are wholly indebted have to be protected in a careful manner, so that the work of improved financial measures would not be sterilised in any way by the standing and previous indebtedness, which is paid promptly, as a debt of honour, even though no assets have been legally inherited. It is not mere relief in this direction alone that is important,

but the possibility of their slipping into the old groove of indebtedness has to be checked by a properly drawn programme of rural reconstruction. It is then alone that hopeless poverty, astonishing ignorance, and tragic helplessness of the rural masses can be arrested. A properly organised system of rural finance can then secure the economic progress of the people. Rural banking has been perfected in certain directions. But cheap co-operative credit has to be more widely extended, and the extortionate rates of interest of the agricultural moneylender or the *mahajan* have to be combated, by organising more desirable rural credit agencies which tend to promote thrift at the same time. The Indian co-operative credit movement, regardless of some set-back here and there, has been functioning in a progressive manner. Reducing its dependence on Government help, supervision, and finance, the Indian co-operative credit movement can adequately strengthen itself, qualitatively as well as quantitatively. With better education and more non-official enthusiasm, the present-day defects, such as long-term loans, slow repayment of loans, abnormal delay in making loans and paper adjustments, and inadequate finance, can be remedied in course of time. If the current of co-operative endeavour be consolidated, extended, and strengthened in the other useful lines beyond credit, such as

consolidation of holdings, co-operative agricultural marketing and consumers' co-operation, industrial co-operation, irrigation, promotion, cattle insurance, housing societies, and better-living societies, the problem of economic regeneration becomes a perfectly assured and settled feature. The number of "average" and the "good model societies" is on the increase everywhere, while those that are usually classed as "bad societies" are on the decrease. But the important desideratum is lesser officialism, more competent non-officialism, more propaganda work, more activity on the non-credit sides of co-operative agricultural activities, more permanent capital attracted as deposits, spread of higher banking knowledge, imparting financial skill and the necessity of prompt repayment, the formation of a greater reserve fund, lesser display of the profit-hunting tendency to secure dividends and commercialised co-operation, greater real honesty and more sincere earnestness. Time and education alone would secure the needed reforms, regulate their pace and activity in the right direction so that the future citizens might be born, bred, and brought up in co-operative institutions alone.

While the problem of short-term and intermediate credit is being carefully tackled, a humble beginning has been made in the direction of land mortgage banks so that the

long-term credit needs of agriculture, such as redemption of lands and payment of old debts, improvement of land and purchase of land, might be easily financed. Since 1920 the different Provinces have been experimenting with the co-operative type of land mortgage banks, but they are totally inadequate and unsatisfactory. While no uniformity in the matter of floating debentures exists, the Government guarantee has been agreed to in all these cases.[1] Aiming at low profits, the co-operative land mortgage banks have been functioning successfully, as in the Madras Province, where the area is limited to five miles and where supervision is well secured by making the land mortgage bank a fully co-operative one. Joint stock land mortgage banks might indeed help the tenants desirous of improving the land under their care. Urban real estate can be improved by loans taken from the joint stock type of land banks. Proper supervision of this type and joint stock land mortgage type can popularise the idea of securing permanent improvements through cheaply secured finance. The other main duty of the State is to organise an efficient system of land transfer and registration. Some of the special fiscal and judicial privileges about execution and foreclosure, exemption from stamp duty, registration fees,

[1] The problem of declaring land mortgage bonds as trustee securities has not been settled as yet (April 1933).

income-tax and provision for transfer of funds, which I recommended long ago, have also been considered necessary by the Central Banking Enquiry Committee. The Provincial Board of Agriculture can indeed be making necessary alterations and needed improvements in the outline of land mortgage banking policy of the Province; for example, in fixing the Government control and help over the land mortgage bank, the borrowing limit of members, the requiring of sureties, maximum amount of loan or the time-length of the loan period, the checking of overdue loans from the land mortgage bank; and these undoubtedly depend on the landholding and tenure system. The co-ordination of mortgage credit and insurance has not been attempted as yet. It is not mere holding of land mortgage debenture bonds by the ordinary insurance companies alone that is needed. Side by side with ordinary amortisation, a special form of extinction of mortgage debt by taking out an insurance policy from co-operative insurance societies has to be devised. Complete dismortgaging should arise out of this step, in case the insured dies.[1]

With the facilitation of agricultural marketing by systematisation of weights and introduction of gradation, agricultural prosperity can be secured if a well-concerted drive in

[1] For various other ways of helping land mortgage banks see Dewau Bahadur M. Ramachandra Rao's article on "Insurance Companies and Land Mortgage Banks."

carrying out the recommendations of the Royal Agricultural Commission and the Central Banking Enquiry Committee is forthcoming. At any rate, it is the duty of the co-operative credit movement to raise the 300 crores of rupees needed annually to finance the agricultural industry. The Federal Reserve Bank can hope to provide a part of the above fund by rediscounting agricultural paper, and the remainder ought to be raised by the co-operative credit movement. The land mortgage banks have to raise not less than, roughly, 876 crores of rupees to wipe off the existing agricultural indebtedness. The other long-term capital requirements may run to twice the above figure at the present stage. The urban credit requirements, including those of artisans and small industrialists, can also be similarly assessed. Although the co-operative movement is essentially a component part of banking, and is bound to receive adequate financial support from it, greater financial resources ought to be garnered by the co-operative credit banks and the land mortgage banks. Real self-help, mutual trust, neighbourly help, participation of womenfolk in the movement, and corporate responsibility, which are the fundamental features of true constructive co-operation, should pervade all actions, from the procuring of credit down to the smallest line of economic activity of our people.

Table Indicating the Progress and Features of the Land Morgage Banks in some of the Provinces.

Province	No. of Mortgage Banks	Year of Starting	Loan Period	Nature of Govt. Help	Remarks	Rate of Interest (per cent)
The Punjab	12	1924	10 to 20 years	Supply of capital	—	9
Madras .	8	1925	20 years	Purchase of debentures. From 1929, guarantee of payment of interest	Central Mortgage Bank, 1929	8 to 9
Bombay .	3	1929	10 to 20 years, or 30 years in some cases	Purchase of debentures	Central Mortgage Bank to be started	7
Mysore .	4	1929	25 to 30 equal instalments	Guarantee of Interest. Purchase of debentures. Part of working expenses. Loan of officers	Central Mortgage Bank	8
Bengal .	2	1927	7 to 20 years	—	—	12
Assam .	5	1927	20 years	Government loans	—	—

THE FINANCING OF FOREIGN TRADE

The lack of national banking policy is nowhere more strikingly illustrated than in the direction of financing foreign trade. Apart from the foreign control of Indian banking resources, the natural advance of Indian Joint Stock Banks in the direction of financing the foreign trade of the country and internal banking has been checked by the presence of the immigrant banks, which number about eighteen, and manage to bring about almost a "foreign money trust" and an insidious system of economic penetration[1] into the interior of the country. As Mr. Manu Subedar says, "The foreign banks are helping their nationals with finance to handle both imports and exports from Indian money, that after this they have still large sums left with them which they engage in internal banking, and from which they are helping their nationals to penetrate in the trade, as far in the interior as possible, and that they have in recent years increased their activities in internal banking to an extent which makes the position not only difficult and hazardous for Indians engaged in trade, but also perilous and unprofitable for Indian banks."

The immigrant banks finance bullion trade,

[1] See my evidence before the Central Banking Enquiry Committee. The different points of criticism mentioned by me have remained unanswered as yet by any spokesman on behalf of the immigrant banks.

undertake remittance and agency work, purchase sterling securities for Indian investors, issue letters of credit, and handle the bulk of invisible imports into India. "They make profits out of the movement of permanent capital in India, the withdrawal of capital, and the transfer of income on such capital. They receive huge Indian deposits, and lend only a portion of the same in India," as Mr. Beaumont Pease says. The available statements concerning British exchange banks, however, contradict the truth of the above remark, and in the absence of more continuously arranged statistical data for a series of years nothing definite can be stated. Apart from their anti-Indian attitude and other inherent defects of policy common to both types of exchange banks, it is a patent fact that they are not "an element of strength to the Indian banking system." In spite of the frank appeal of Sir Purshottamdas Thakurdas to the Exchange Banks Association to allay the fears of the Indian commercial community and issue a memorandum, nothing has been done hitherto to placate the sentiments of the Indian mercantile, insurance, and shipping circles. How far the policy of give and take and a spirit of professional comradeship with Indian banking institutions have been inaugurated is not known to the general public. Although they secure cheap deposit money and rediscount their bills cheaply in the London

money market, they have failed to cheapen their banking service to Indian customers. As dependence on alien institutions is a dangerous folly, Indian enterprise in the direction of exchange banking has to be undertaken as early as possible, so that the vested interests of immigrant banks would not prevent the development of healthy and orderly growth of Indian banking.

Should the Imperial Bank develop into a foreign exchange bank?

The future of the Imperial Bank has been wisely stated long ago as the initiator of sound commercial banking in the internal banking system of the country.[1] As the undertaking of foreign trade financing would be incompatible with its existing duty of opening fresh branches, conducting Government's financial work, and financing of industries by demand loans, the possibility of increasing its foreign exchange work has to be discarded. Now that no British exchange bank has cared to adopt the Indianisation programme, and as a separate State-aided foreign exchange bank with monopoly of Government remittance is against all canons of equity,[2] the starting of an Indian overseas bank has to be adopted. The Federal Reserve Bank can virtually stimulate its development

[1] See my article, entitled "The Future of the Imperial Bank of India," *Mysore Economic Journal*, September 1930.

[2] See the Minutes of Dissent of Mr. N. R. Sircar and Sir P. Thakurdas and others for an elaborate idea of this suggestion.

by aiding it favourably with Government remittance work. A properly qualified management of the Indian overseas bank can surely, in these days of Swadeshi spirit, command the confidence of the Indian public, and, with the exchange work of the Indian Joint Stock Banks securely passed on to it, it can hope to give honourable fight to the British exchange banks. A proper co-operation and co-ordination of the overseas bank with the Joint Stock Banks, the modernised indigenous bankers, the Federal Reserve Bank, and the immigrant banks would soon enable it to take a proper share in the financing of India's foreign trade.

While the Indian overseas bank, whose capital is subscribed by Indian joint-stock banks and the Indian public—the State aiding the share capital in the event of the public failing to participate—has to conduct business on the following lines,[1] the imperative necessity of

[1] If the Indian exporters command better prices for their export bills at the hands of the Indian overseas bank, the business of financing export trade would easily be attracted by it. The Indian overseas bank should maintain always in its initial stages rates about one or two points more favourable than those of the foreign exchange banks in this country. If the exporters secure greater resources by selling their export bills to the Indian overseas bank than would be the case when they sell them to the foreign exchange banks, they would flock to the standard of the new bank. If the Central Bank were to help it with funds for this purpose at a low rate of interest, more export bills could be financed by the Indian overseas bank. More rupees should be granted by the Indian overseas bank when purchasing the export bills at differential rates. Of course, rate-cutting would ensue, and for quite a long period the foreign exchange banks would prove to be effective competitors. Similar should be the treatment shown towards the importers. They should be securing greater return in foreign currency by flocking to the standard of the Indian overseas

"closing the open door policy" in the matter of immigrant banks, and subjecting them to control by a licensing authority, should always be actuated by the motive of safeguarding Indian interests. While such radical suggestions as the withdrawal of the interior branches, say, within a definite period of five years, the refusal to great rediscount facilities, the abolition of the right to attract deposits from Indians, and a refusal to permit them to acquire any controlling interests in any Indian banking institution, cannot be promulgated—however urgently needed they might be—by a non-sovereign Government, it is becoming increasingly clear that the field for expansion on the part of the indigenous banker and the Indian Joint Stock Banks has to be definitely earmarked or else undue competition at the hands of immigrant banks would virtually stifle their economic capacity.

The Indian overseas bank has to actively finance the foreign trade, develop the drawing of rupee import bills, and the Federal Reserve Bank can hope to accelerate the formation of an active discount market by purchasing, selling, and rediscounting rupee import bills.

bank than when they resorted to the foreign exchange bank. It is only in this way that we can hope to create an institution meant for conducting foreign exchange business with domestic resources. See my written evidence before the Central Banking Enquiry Committee, section, "The Financing of Foreign Trade with Domestic Resources."

BANKING LEGISLATION

The existing Indian Companies Act, which is aided by tradition, convention, and case law, does not sufficiently bind our general banking business. It is not sufficiently restrictive in scope. A special banking Act, as in the case of Japan, the U.S.A., and Canada, has to be enacted so that official regulation and central banking supervision would create the needed confidence element in the management and direction of Indian Joint Stock Banks. All existing Indian banks ought to register themselves under the new Bank Act. Every banking concern has to secure a licence from the Federal Reserve Bank. Firms and companies using the term "bank," and desiring to be incorporated under the Act, have to confine themselves strictly to banking business. They should have a majority of natural-born or domiciled Indian directors. Every banking concern should have a paid-up capital of not less than Rs.50,000. Its authorised capital might be double that subscribed, which itself might be double the paid-up capital. The whole of the paid-up capital must be gathered before the bank is allowed permission to start banking business. No loans should be made on the security of the bank's own share. The loans that can be made to the director, manager and officers of the bank should be strictly

limited. Bad debts have to be written off before any dividend is declared. Advances to auditors of the bank have to be prohibited. A compulsory formation of reserve fund should be made before a full declaration of dividend can take place out of the profits gained. A revised balance-sheet has to be published. The Indian creditors of an immigrant bank should be given a prior claim, or a lien on the Indian assets, and share in general distribution of assets. Barring the maintenance of cash reserve, which can be left to the discretion of the management, the Act should insist on sufficient publicity of all material facts concerning banking business. The Federal Reserve Bank should initiate or veto any amalgamation proposal, so that the elimination of the weak banks is taking place. The criminal and civil liability of the officers of the bank might be enhanced, and dishonest and incompetent management, which is often responsible for bank failures, can be checked thus alone.

BANK FAILURES

Bank failures arise out of bad and speculative investments, unrestricted and injudicious loans—bad banking, such as borrowing short and lending long, lending largely on real estate and intangible and immobile securities, lack of proper cash reserves and liquid

assets, and the combined undertaking of non-banking functions with commercial banking business. No amount of legislation can hope to secure a banking paradise. Legal safeguards can easily and successfully be evaded for a long time. It is education and proper vigilance by shareholders alone that can hope to detect these amazing delinquencies. The Indian depositor could be allowed to form supervisory committees to check such vagaries on the part of the dishonest officers of the bank. At last the Indian Institute of Bankers has been organised. Though the educational training of the junior bank officers is progressing on sound lines, the deputing of capable officers to understand advanced problems of international banking, currency, and exchange has not been undertaken as yet. Increasing attention is being devoted in secondary schools to a systematic study of elementary accounting, discount, banking, and co-operative principles. The needed compilation of banking statistics and useful economic data has not been undertaken as yet. The formation of a Federal Reserve Bank would soon provide for this.[1] While the perfection of banking technique might be easily secured by better education, helpful legislation, and careful

[1] Since these lines have been written the Government of India is contemplating the opening of a statistical service to secure more authentic details of our economic life, which are so essential for guiding our foreign trade, currency, and protectionist policies.

organisation, success in the art of banking depends on vision. Imagination and vision to realise the field of their usefulness in new directions, and the performing of them in the interests of the people, is needed.

FOREIGN CAPITAL INVESTMENTS IN INDIA

Figures concerning foreign capital investment, which range from the "quite astronomical" to an absurdly "low level," are paraded before the reading public. The following table gives one an understanding of their computations.

Author	Year of Estimation	Where Estimated	Amount £
Sir George Paish .	1911	Paper before the Royal Statistical Society	365,000,000
The London *Economist*	1911	Feb. 20th, 1911: "Our Investments Abroad"	470,000,000
H. F. Howard .	1911	*India and the Gold Standard*	450,000,000
Sir George Paish .	1916	Quoted by B. Mukherjee in his *New Yellow Peril*	390,000,000
Sir Archibald Birkmyre . . .	1917	—	500,000,000
Sir David Sassoon .	—	—	420,000,000
Sir Lionel Abrahams	1919	Evidence before Currency Committee	450,000,000
Financial Times .	1930	Sayer's article	600,000,000
G. D. Birla . .	1932	*The Economic Journal*	1,000,000,000
G. F. Shirras . .	1932	*The Economic Journal*	481,000,000 to 500,000,000
A more recent estimate . . .	1933	*The Economic Journal*	575,000,000

Understanding foreign investment to consist of subscriptions to public debt, quasi-public debt, share capital of joint stock trading and banking companies, debentures held, partnership and managing agent's capital, the details can be arranged in a tabular form.

Item	Amount £ millions
Sterling liabilities of the Government of India . . .	337·4
Capital of companies registered elsewhere but working in India	161·7
Municipal and Port Trust, etc.	13·0
Capital of banks, insurance, trading companies doing main business elsewhere than in India	34·6
Share *in re* capital companies	42·5
Non-resident shares in partnerships, etc., working in India	15·0
Rupee loan in India	6·2
Total	612·4

Granted that this is a fairly accurate estimate, the holdings of Indian people in sterling loans —amounting to Rs.50 crores or £37.5 millions— and the amount of Indian-owned capital stationed abroad—which may be estimated at £10 millions—have to be deducted so as to arrive at the net foreign liabilities. It comes up, roughly, to £565 millions.[1] Although India's financial position is rendered vulnerable as a result of these vast external capital holdings, and her exchange position seriously endangered as a result of the remittance difficulties, it must be admitted that improvment in internal economy has resulted out of the "pioneering ability" of foreign capitalists in the industrial

[1] See the *Economic Journal*, March 1933.

field. Additional wealth has been garnered as a result of the foreign lending to both lender as well as borrower. Even granted that the Government of India has borrowed at a lower figure in the London money market than other countries, it does not mean that no efforts should be made to develop the Indian capital market by inculcating the savings habit and promoting home investment tendency in economically productive directions. Sacrificing luxuries, the richer classes can hope to save more. A wise control of public and private expenditure, and a proper and profitable utilisation of personal income, would augment the amount of saved capital. The development of social credit, and the purchasing of Government stores in India proper, would lead to the accumulation and mobility of domestic capital resources.[1]

Most of the creditor countries of the world are realising the evils of excessive lending to debtor countries. In addition to this danger of the circuit flow of foreign capital being cut off at any time, the deleterious consequences of external capital investment have been experienced fully by this country. The impeding of political reforms, the economically disadvantageous feature of financial conquest, and the feverish and uneconomic exploitation

[1] See my *Present-Day Banking in India*, chapter on "The Capital Market."

of the economic resources of the country by the foreign entrepreneur-capitalists, are some of the visible and outstanding results experienced by this country. The present-day cry for financial safeguards would never have arisen but for the vested interests of the foreign capitalists—mostly of British origin.

Savings ought to be accelerated, and these have to be utilised by the investing public in purchasing bonds, securities, and shares on the basis of investment credit information supplied by specially created investment credit agencies, which function on lines similar to Moody's, Poor's, and Fitch's in America. In the field of Indian investment finance, public securities have already become popular, thanks to the efforts of the Government of India in this direction.[1] A similar improvement is necessary in the field of industrial finance. Although weekly surveys are issued by the different newspapers surveying the investment tendencies as depicted by the Stock Exchange transactions, yet the analysis of the investment credit position on the basis of general ratios relating to the capital structure, earning power, and market position of the industrial securities, is not offered by any Indian agency as yet. The compilers of the *Indian Investor's Year Book* ought to undertake this analysis

[1] See my lecture, entitled "Banks and the Money Market," delivered before the Institute of Bankers (Calcutta Centre), and published in the *Journal of the Indian Institute of Bankers*.

before they can hope to increase the investment habit of the people in the industrial companies. Industrial financing through commercial bank assistance has to be changed. The securing of capital funds instead of bank funds ought to be the main ideal. Dependence on external loan capital, even, has to be avoided at all costs.

No task of Indian financial reconstruction is so difficult as the one of supplanting the external capitalist in each and every direction. Apart from the onerous duty of repaying the unproductive external capital debt of the Government and limiting the same in the near future to absolutely low figures, the stimulation of home investment is needed. Proprietary investment in Indian trading companies, banks and insurance companies, and other key industries, ought to be entirely in the hands of the children of the soil. Foreign ownership of real property can indeed be defeated by operation of rent laws and extraordinary taxes imposed on the foreign landlords.

India is not a fully developed country. She needs large sums of capital to secure her economic growth. The national industrial equipment is below par, and undeveloped in proportion to the increasing growth of her people, which now amounts to 353 millions. Apart from checking the flight of capital arising out of political insecurity, currency instability, oppressively threatening taxation,

and attractive propaganda by foreign banks,[1] a change in the industrial policy of the Government should tempt the actual savers to prefer home investment. Institutions of investment finance like the Investment Trust and investment bankers can hope to accelerate the implanting of the investment habit in the minds of small investors.

While movements of external capital—i.e. short-term—can be allowed to have their influence on Indian investment finance, nothing is so dangerous as the dependence on the free flow of external capital which is usually invested for fairly long periods. Considerations of time and space preclude the writer from making a detailed analysis of the importation of capital from outside into the country from 1900 down to 1932. Of whatever importance this might be, it is absolutely essential that the locking up of savings in barren gold has to be given up. The present finance member, Sir George Schuster, aptly points out that if the proceeds of gold imported into India since 1900 were converted into Government securities, India could discharge the entire external debt of hers. While the small Indian investor has to bear this in mind, the Government of India would have to desist from further manipulations of currency and exchange in

[1] See my paper, "Can India become a Creditor Country?" read before the All-India Economic Conference held at Bombay, January 1932.

such a way as to prevent the creation of foreign balances.

As a matter of fact, there has been vast improvement in the field of individual investment in Government securities, but industrial investment has not proceeded fast. The inaccessibility of genuine Stock Exchange brokers[1] the unavailability of good industrial scrip in small lots, and the speculative tendency of the managing agents themselves, stand as an effective hindrance. These can be overcome by the organisation of real investment trusts, which have to be managed on really approved lines by honest directors well versed in the science of investment. Our economic system depends on the accumulation of capital. The savings of the people promote individual welfare. From the standpoint of public interest, these savings ought to be carefully protected and safeguarded so that they will be available at the time of economic emergency.

POSTSCRIPT

Since these lines have been written the Reserve Bank Bill of 1933, which was suggested by the London Committee, has been approved at a special sessions of the Indian Legislative Assembly. The shareholders' type has been approved, though, of course, it tends to become state-managed as the higher appointments including that of the Directors would be made by the Secretary of State. The City interests and those of the British banking circles would undoubtedly be subserved by this arrangement.

[1] Suggestions for improving the local Stock Exchanges are outlined in my paper, "Central Banks and Speculation," published in the *Calcutta Review*, October 1932.

3. THE RUPEE AND THE POUND

By PROF. BRIJ NARAIN

THE CHIEF aim of the currency policy of the Government of India during the past forty years has been to secure a stable rate of exchange.

The rupee had no fixed relation to the £ before 1893. Before the closing of the mints to the free coinage of silver in that year, the rupee was a full-value coin and its gold value fluctuated according to the gold value of its silver contents. The price of silver in terms of gold began to fall in the year 1873, which was the beginning of our currency troubles. Between 1873 and 1892 the price of silver per oz. fell from 59·25*d.* to 39·81*d.*, and, in consequence, the exchange value of the rupee fell from 22·88*d.* to 15·25*d.* (annual averages). The attempt to secure a settlement of the silver question by international agreement having failed, the Government of India, acting on the advice of the Herschell Committee, closed the mints to the free coinage of silver by Act No. VIII. of 1893. The gold value of the rupee was fixed at 7·53344 grains of fine gold.

Exchange did not rise at once. On the other hand, it continued to fall until the rupee touched its lowest point, 12⅝*d.* in January 1895 (the price of silver fell to 35·31*d.* per oz. in 1893 and 28·94*d.* per oz. in 1894). Thereafter exchange rose as the result of the policy of "starving the circulation," and it nearly touched the 16*d.* par in the latter part of 1897. The currency situation was now re-examined by a committee presided over by Sir Henry Fowler. The more important recommendations of this committee were that the sovereign and the half-sovereign should be declared legal tender throughout India at fifteen rupees per sovereign, and that a gold standard, with its "normal accompaniment," a gold currency, should be established in India.

The import and absorption of sovereigns into circulation increased from year to year after the sovereign became legal tender, and there is much evidence to show that it was used for monetary purposes in many parts of India. The proposal to establish a gold mint in India, however, aroused violent opposition in England which forced the Government to abandon the proposal. The gradual evolution of the gold exchange standard, in place of the gold currency standard recommended by the Fowler Committee, belongs to the first decade of the twentieth century.

Between 1898 and the outbreak of the Great

War in August 1914 the rupee exchange remained fairly steady at 16*d.* It fell below the lower specie point in 1907–8, but recovered as soon as the Government began to give gold for export and announced their willingness to sell sterling bills (called reverse bills or reverse Councils). The amount of gold withdrawn from the Gold Standard Reserve in London to meet the reverse bills was £8,058,000.

The Chamberlain Commission, appointed in 1913, approved of the measures adopted by the Government to maintain the exchange value of the rupee and laid it down that "the establishment of the gold value of the rupee on a stable basis has been and is of the first importance to India."[1] The Commission advised the Government to "make a public notification of their intention to sell bills in India on London at the rate of 1*s.* $3\frac{29}{32}$*d.* whenever they are asked to do so (as was actually done in 1908 and confirmed in 1909) to the full extent of their resources."[2]

When the rupee was given an artificial gold value, it ceased to be affected by fluctuations in the price of silver. A stable gold rate was thus secured. But the gold exchange system broke down, as might have been expected, when silver rose above the bullion par of

[1] *Report*, Summary of Conclusions, paragraph 223 (i.).

[2] *Report*, paragraph 101.

the rupee in 1917. The old connection between the exchange value and the silver contents of the rupee was re-established, and the rupee ceased to be a token coin.

Two courses were now open to Government, either to reduce the weight or fineness of the silver rupee (or both), or to raise exchange. Following the advice of the Babington-Smith Committee, appointed in 1919, the Government chose the latter. The rate adopted was 2*s*. gold. The Government, however, failed to maintain exchange at 2*s*. gold, or even 2*s*. sterling. After selling reverse bills on an unprecedented scale from February to the end of September 1920, the Government decided to leave exchange alone.

The rate of exchange for Calcutta telegraphic transfers on London (average of daily rates) was 2*s*. $0\frac{3}{32}$*d*. (sterling) in 1920; it fell to 1*s*. $4\frac{1}{32}$*d*. in 1921 and 1*s*. $3\frac{19}{32}$*d*. in 1922. Exchange gradually rose after July 1922. The average rate was 1*s*. $4\frac{7}{32}$*d*. for the whole year 1923, 1*s*. $5\frac{1}{4}$*d*. for 1924 and 1*s*. 6*d*. for the first nine months of 1925. When the last Currency Commission, presided over by Commander Hilton-Young, was appointed in August of that year, 1*s*. 6*d*. (gold) was the *de facto* rate.

The rise of exchange is explained by the financial policy of the Government.

The currency was contracted by 31,58 lakhs in 1920–1, and the policy of contraction

was continued in the following two years, the net contraction made in these two years being 1,11 lakhs and 5,69 lakhs respectively. Seasonal currency was issued and withdrawn in 1921–3 and in the following years. By January 1923 exchange had risen to about 16*d.* sterling and it continued to rise. Helped by good monsoons, favourable balances of trade, and cessation of the fall in world prices in 1923 and 1924, and owing to their control of the local financial situation, the Government of India, in the words of Mr. McWaters, were able " to take action of a kind which had the natural result of improving the exchange value of the rupee."[1] After the rise of exchange to 18*d.* sterling (=16*d.* gold) in October 1924, the action taken by the Government was to prevent the rise of the rupee above that rate.

The 18*d.* rate was vehemently opposed by Indian public opinion. It was argued in the " epoch-making " report of 1925 that, at the rate of about 18*d.* to the rupee, prices in India had attained " a substantial measure of adjustment with those in the world at large."[2] The Commission, in the first place, limited their examination of world gold prices to the course of gold prices in two countries only, the United States and the United Kingdom. They ignored the fact that, as compared with

[1] *Appendix to the Report of the Currency Commission of* 1925, Vol. II., p. 18.

[2] Paragraph 176.

January 1925, gold prices were lower in September 1925 in twelve out of fourteen countries of Europe.[1] The explanation of the fall of gold prices in 1925 was "increasing economic stagnation in most of the European countries"[2] in contrast to the favourable conjuncture in the United States. The fall in our prices in harmony with European gold prices was natural. It was not that our prices fell at a time when world gold prices were stationary.

Secondly, the Currency Commission forgot that the rise or fall of prices is not always due to changes in the rate of exchange. Even if the price of a commodity falls at a time when exchange is rising, the amount of the fall in price being equal to that of the rise in exchange, the causes of the fall may be wholly unconnected with the rise in exchange. Hence the importance of the study of price fluctuations in the case of individual commodities.

A detailed study of the movements of Indian prices from 1861 to 1891 was made in connection with the Indian currency reform of 1893.[3]

[1] In the following countries gold prices in September 1925 were lower than in January: Germany, Great Britain, France, Belgium, Netherlands, Denmark, Sweden, Switzerland, Spain, Austria, Czecho-Slovakia, and Poland (*Wirtschaft und Statistik*, Berlin, published by the Government Statistical Department, 1 Feb. Heft, 1926, p. 84).

[2] Ibid., pp. 84–5.

[3] *Papers relating to Changes in the Indian Currency System*, Simla, 1893, pp. 31–52.

It is remarkable that the Hilton-Young Commission recommended the stabilisation of exchange at 18*d.* gold on the ground that Indian prices had become adjusted to the rate of exchange, without producing evidence to show that this adjustment had actually taken place in the case of a large number of commodities. There is no reference in the "epoch-making" report to the price fluctuations of any single commodity or group of commodities!

The relation of prices to exchange is a complicated one. It is doubtful if the adjustment of prices and wages to exchange was perfect even in the case of a country like the United Kingdom.[1] As regards India, there is much evidence to support the conclusion that this adjustment had not taken place in 1925. Nor was there any perfect correlation between the price movement and the exchange movement in India between 1873 and 1895, or between 1895 and 1898. Under

[1] "For example, Great Britain established a gold parity which meant that her existing level of sterling incomes and costs was relatively too high in terms of gold, so that, failing a downward adjustment, those of her industries which are subject to foreign competition were put at an artificial disadvantage" (*Report of the Committee on Finance and Industry*, 1931, Cmd. 3897, paragraph 245). According to M. André Siegfried, the British policy of returning to gold "sacrificed production for the sake of exchange" (*La Crise Britannique au XX^e siècle*). This is, of course, well known. On the relation of exchange to prices see also *Die italienischen Wechselkurse während der Jahre 1914–19*, by Karl M. Obenaus (Wurzen, 1922), and *Die ausländischen Wechselkurse in Frankreich seit 1914*, by Dr. Andreas Revai (Munich, 1925). These interesting studies also suggest that the precise adjustment of prices to exchange almost never takes place.

the gold exchange standard, while exchange on the whole remained steady, prices in India rose more rapidly than in other countries.[1]

The Hilton-Young Commission condemned the gold exchange standard as inautomatic. It recommended the gold bullion standard for adoption. Among other things, the gold bullion standard was supposed to provide our token currency "with a right of convertibility that is intelligible to the uninstructed and with a backing that is tangible and visible"[2] —a good joke from the point of view of the uninstructed !

I may give one example to show the extent to which our Currency Commission was influenced in its recommendations by the evidence of English witnesses. If India adopted a gold currency, argued the Commission, the price of silver was likely to fall. It must injure China. This was a most serious matter ; "for China," wrote the Commission, "is the greatest and perhaps the only great undeveloped market left for the expansion of international trade."[3]

India is very slightly interested in the Chinese trade. But a whole section of the report is devoted to "Effects on China." The whole of this section, with slight but significant changes, is a word-for-word reproduction of

[1] *Indian Economic Life*, by Brij Narain (Lahore, 1929), chaps. viii. and xv.

[2] *Report*, paragraph 61.

[3] *Report*, paragraph 50.

the statement regarding China made by Sir Charles Addis before the Commission. Sir Charles said: "It [China] is the greatest, perhaps the only great, undeveloped country left for the expansion of *British Industry*."[1]

The 18*d.* rate chosen in 1927 was a gold rate. The exchange value of the rupee was fixed at 8·47512 grains of gold. This has to be clearly stated, for when we went off the gold standard on September 21st, 1931, it was pretended that there had been no change, as—to quote the words of Sir Samuel Hoare—"for all practical purposes the stability of Indian exchange had been based on sterling."

The 18*d.* gold rate functioned for something less than six years. The existing situation, in spite of the fairly steady 18*d.* sterling exchange, can only be described as an exchange muddle. The gold value of the rupee fluctuates with the gold value of sterling.

A new and interesting chapter opened in the history of Indian currency when we went off the gold standard. What have been the effects of the linking of the rupee to sterling on Indian prices and foreign trade?

INDIA UNDER STERLING

The following table shows the index numbers of wholesale prices in Calcutta:

[1] *Evidence*, Vol. V., p. 189, Q. 13697.

Seventy-two Commodities ("Calcutta Trade Journal")

Year	Annual average	Year	Annual average
1914 (end of July)	100	1925	159
1920	202	1926	148
1921	179	1927	148
1922	176	1928	145
1923	172	1929	141
1924	173	1930	116

Monthly Index Numbers

Month	1931	1932	1933
January	98	97	88
February	99	97	86
March	100	94	82
April	98	92	84
May	97	89	87
June	93	86	89
July	93	87	91
August	92	91	89
September	91	91	88
October	96	91	88
November	97	91	88
December	98	88	89

It will be seen that the annual average for 1930 was 16 per cent above the pre-war level (July 1914), but prices continued to fall in 1931, the index number registering 92 in August of that year. The abandonment of the gold standard and the linking of the rupee to sterling at the end of September led to a temporary revival of business activity, and prices showed an upward tendency from September 1931 to February 1932, the index number rising from 92 in August 1931 to 97 in February 1932. After that, excepting a rise of 4 points in August 1932, prices continued to fall till March 1933, when the index number stood at 82, or at a level lower than that of August 1931.

The following statement shows the value of our foreign trade during the past five years:

India's Foreign Trade

(+) *plus* signifies net exports and (–) *minus* net imports.

	1928–9 lakhs	1929–30 lakhs	1930–1 lakhs	1931–2 lakhs	1932–3 lakhs
Exports of Indian merchandise . .	+330,13	+310,80	+220,49	+155,89	+132,43
Re-exports of foreign merchandise .	+7,83	+7,13	+5,14	+4,66	+3,22
Imports of foreign merchandise .	–251,49	–238,91	–163,58	–125,72	–132,27
Balance of trade in merchandise .	+86,47	+79,02	+62,05	+34,83	+3,38
Gold . .	–21,12	–14,22	–12,75	+57,98	+65,52
Silver . .	–13,04	–11,89	–11,65	–2,59	–73
Currency notes	–12	–9	–3	+26	+13
Balance of transactions in treasure .	–34,36	–26,20	–24,43	+55,65	+64,92
Total visible balance of trade . .	+52,11	+52,82	+37,62	+90,48	+68,30

The increase or decrease in total exports (including re-exports) and imports of merchandise in each year as compared with the preceding year is shown below:

	Exports per cent	*Imports* per cent
1929–30 . .	–6	–5
1930–31 . .	–29	–31
1931–32 . .	–29	–23
1932–33 . .	–15	+5

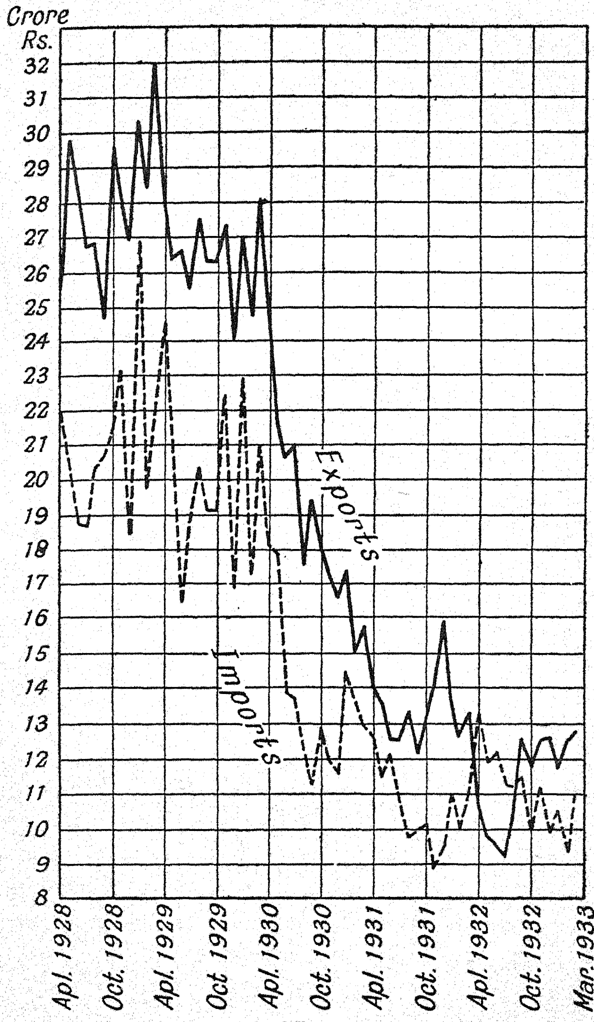


Fig. 1. : Exports and Imports in each Month, 1928-29 to 1932-33

The heaviest fall, both in exports and imports, occurred in the financial year 1930–1, when, as compared with the preceding year (1929–30), imports declined 31 per cent and exports 29 per cent. In the following two years the decline of exports continued, the value of exports falling from 225·6 crores in 1930–1 to 160.6 crores in 1931–2 and 135·7 crores in 1932–3, but the percentage decline in 1932–3 (15) was about half that in 1931–2. The value of imports in 1932–3 shows a rise of 5 per cent as compared with 1931–2.

The following table shows imports from and exports to four leading countries :

	1928–9 lakhs	1929–30 lakhs	1930–1 lakhs	1931–2 lakhs	1932–3 lakhs
Imports from					
United Kingdom . . .	113,24	103,10	61,28	44,81	48,77
Germany	15,84	15,79	12,38	10,20	10,37
Japan	17,67	23,59	14,51	13,34	20,50
United States . . .	17,36	17,66	15,15	12,84	11,25
Exports to					
United Kingdom . . .	69,04	66,55	51,77	42,85	37,55
Germany	32,32	26,57	14,26	10,28	8,00
Japan	34,43	32,26	23,73	13,94	13,95
United States . . .	39,11	36,33	20,65	13,86	9,76

Attention may be drawn to the increase in imports from Japan and the United Kingdom and the decrease in exports to the United Kingdom, Germany, and the United States in 1932–3 as compared with 1931–2.

The balance of trade in merchandise has been falling heavily and continuously (Fig. 2),

the amount of the favourable balance in 1932–3 being reduced to a little more than 3 crores. But as the excess of exports over imports declined, the net exports of treasure, chiefly gold, increased (Fig. 3).

It may be noted that the heavy fall in exports is not entirely due to the fall of prices. The quantities of the principal articles exported have also decreased. This is shown by the following table:

Exports of	1928–9	1929–30	1930–1	1931–2	1932–3
Grain, pulse, and flour, 1,000 tons	2,300	2,510	2,614	2,614	2,056
Hides and skins, raw, 1,000 tons	66	53	45	34	27
Hides and skins, tanned or dressed, 1,000 tons	24	21	18	16	15
Lac, 1,000 cwts.	743	669	547	464	418
Seeds, 1,000 tons	1,328	1,195	1,037	988	732
Tea, million lb.	360	377	356	342	379
Cotton, raw, 1,000 bales	3,712	4,070	3,926	2,369	2,063
Jute, raw, 1,000 tons	898	807	620	587	563
Gunny bags, millions	498	522	434	389	415
Gunny cloth, million yds.	1,568	1,651	1,271	1,021	1,012

Of the articles mentioned in the table, tea alone shows an increase in 1932–3 as compared with the preceding years. But the value of exports of tea fell from 26,60 lakhs in 1928–9 to 17,15 lakhs in 1932–3.

Having considered the general course of our foreign trade during the past five years we may next study the figures for the eighteen months preceding and the eighteen months following the abandonment of the gold standard.

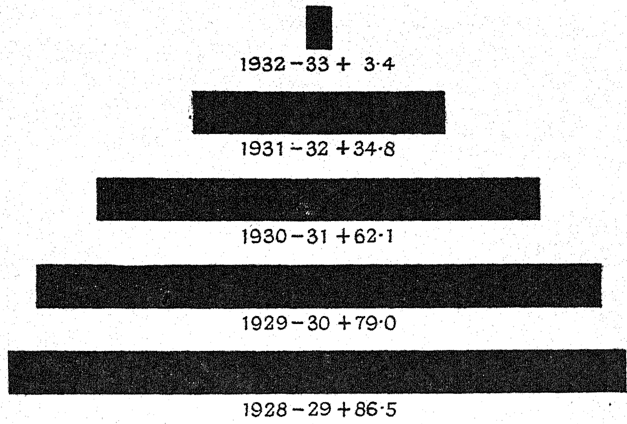


Fig. 2. : India's Balance of Trade in Merchandise in crore Rs.

	April 1, 1930, to Sept. 30, 1931 lakhs	Oct. 1, 1931, to March 31, 1933 lakhs
Exports of Indian merchandise . .	+295,99	+212,79
Re-exports	+7,64	+5,38
Imports	−229,50	−192,08
Balance of trade in merchandise . .	+74,13	+26,09
Gold	−12,35	+123,09
Silver	−13,27	−1,70
Currency notes	−2	+38
Balance of transactions in treasure .	−25,64	+121,77
Total visible balance of trade . .	+48,49	+157,86

In the period October 1st, 1931, to March 31st, 1933, as compared with the preceding period of eighteen months, exports decreased by 28·2 per cent and imports by 17·3 per cent. But we already know that to the favourable balance of trade of 26,09 lakhs realised in the eighteen months ending March 31st, 1933, the

financial year 1932–3 contributed only 3,38 lakhs. Similarly we know that imports of merchandise increased in the financial year 1932–3. The situation, from the point of view of our balance of trade, was more favourable in the first six months following the linking of the rupee to sterling. It grew steadily worse in the next twelve months.

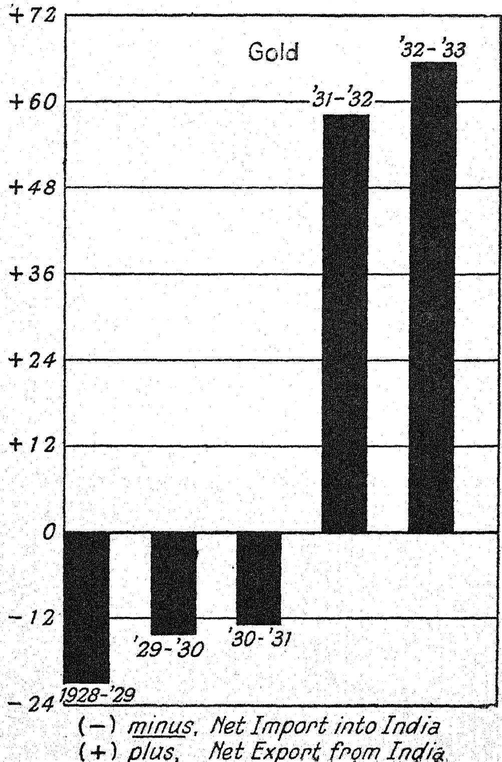


Fig. 3

The following table shows the quantities of the principal articles exported in the two periods :

Exports	April 1, 1930, to Sept. 30, 1931	Oct. 1, 1931, to March 31, 1933	Increase (+) or decrease (–) per cent
Grain, pulse, and flour, 1,000 tons	3,890	3,394	–13
Hides and skins, raw, 1,000 tons	64·2	41·9	–35
Hides and skins, tanned or dressed, 1,000 tons	24·8	23·1	– 7
Lac, 1,000 cwt.	764·6	664·6	–13
Seeds, 1,000 tons	1,528	1,229	–20
Tea, million lb.	509	568	+12
Cotton, raw, 1,000 bales	5,361	2,997	–44
Jute, raw, 1,000 tons	853	917	+8
Gunny bags, millions	601	637	+6
Gunny cloth, million yds.	1,792	1,512	–16

It is seen that, with the exception of tea, raw jute, and gunny bags, exports decreased.

The conclusion that emerges from our examination of trade statistics is that India has failed to derive any substantial benefit from linking the rupee to sterling. On the contrary, the continuous decline in exports at a time when imports are increasing has created a situation which is full of dangerous possibilities.

The Ottawa Trade Agreement threatens to involve India in a tariff war with Japan. If Japan's threat of boycotting Indian cotton materialises, serious injury will be inflicted on our cotton growers, for Japan is an important buyer of Indian cotton, and the amount of cotton exported to the United Kingdom is comparatively small.

Exports of Cotton. Quantities in 1,000 tons

	1928–9	1929–30	1930–1	1931–2	1932–3
Total exports . . .	663	727	701	423	368
Exports to Japan . .	288	293	301	193	194
Per cent of total . .	*43·4*	*40·3*	*42·9*	*45·6*	*52·7*
Exports to U.K. . .	43	48	50	30	30
Per cent of total . .	*6·5*	*6·6*	*7·1*	*7·1*	*8·2*

Value in lakhs

	1928–9	1929–30	1930–1	1931–2	1932–3
Total exports . . .	66,25	65,08	46,33	23,45	20,37
Exports to Japan . .	29,03	27,30	20,99	11,05	11,12
Exports to U.K. . .	4,42	4,31	3,00	1,54	1,61

We are here not concerned with the Trade Agreement, but we have to note that any factor tending to reduce our exports to foreign countries, in the present condition of our trade balance, may produce disastrous consequences.

The present situation is gloomy enough. Our annual Home Charges amount to over 40 crores, but to pay them we had a favourable trade balance of less than 3½ crores in 1932–3. To meet our obligations abroad we are therefore compelled to export gold.

GOLD EXPORTS

In the years 1928–9, 1929–30, and 1930–1 there were net imports of gold into India amounting to 21,12 lakhs, 14,22 lakhs, and 12,75 lakhs respectively. The export of gold began after the linking of the rupee to sterling. Exports amounted to 57,57 lakhs in the six

months from October 1st, 1931, to March 31st, 1932, and 65,52 lakhs in the financial year 1932–3, a total of 123,09 lakhs in eighteen months since October 1st, 1931. There is no sign at present of any weakening of gold exports.

While the world does not want more of our food-stuffs and raw materials, its demand for our gold is undiminished.

What is the view taken of gold exports in India? The Government are not displeased. Speaking in February or March 1932, the Viceroy declared that the export of gold was "definitely and decisively to India's advantage." The Finance Member in his Budget speech for 1933–4 claimed that the export of gold meant the conversion of one form of reserve into another. Indian opinion views the situation with alarm, but it has never counted for much. Let us, therefore, try to understand the case for gold exports as argued by the Finance Member.

From October 1st, 1931, to the end of December 1932, gold exports amounted to 107·08 crores or £80⅓ million. During the same period the amount of India's favourable balance of trade was 19·92 crores, or about £15 million, which, added to £80⅓ million acquired through the export of gold, brings the total of our external balances to £95⅓ million.

Our normal current requirements in this period on account of family remittances, sea freights, interest and dividends on investments in India held abroad, etc., are estimated at £14 million. It may be assumed that the surplus balance of trade in merchandise of £15 million was required to meet these obligations. In round figures, of the remaining sum of £80 million, representing the export of gold, Government acquired, by its purchases in the market as currency authority, £70 million, £10 million being used to repay foreign funds temporarily invested in India in Indian Treasury bills, etc. The Government, out of its £70 million, used £34½ million to meet its own recurrent requirements (Home Charges) and £35½ million to repay sterling loans and strengthen its reserves (£11 million was added to the currency reserves and £13¼ million to Treasury balances).

It must not be supposed that the Government added £24 million to its reserves in the form of gold. We are told that we already had our proper proportion of gold in the reserves. We therefore converted this sum into interest-bearing sterling investment.

Put very briefly, our gold exports mean that we have been paying our debts to the United Kingdom by exporting gold and have converted some gold into sterling securities.

The Finance Member also drew attention to

another aspect of gold exports. The present situation, from the point of view of the flow of international trade, is unsatisfactory in the extreme. Every country seems determined to check the flow of international trade. This they do by artificial restrictions on imports by way of high duties and in other ways. It is not surprising that the channels of international trade are gradually becoming completely dry. In these circumstances, it is pleasant to find that India is making use of her accumulated reserves of gold to increase the flow of international trade. In this sense our gold exports have conferred a benefit on the whole world.

There is no question that if we wish to further encourage the flow of international trade, we have more gold for the purpose. But how long can this process continue? This question the Finance Member declined to answer. "How long such a process can, without damaging the country, continue," he said, "is another matter."

Much of the gold that India is exporting is "distress" gold, that is, gold which the people have sold to buy food and clothing and to pay Government dues. As Sir L. Hudson stated in the course of his speech in the Indian Legislative Assembly on March 2nd, 1933, a very large percentage of the sale of gold represents "the forced sale of capital resources

to provide for ordinary, every-day necessities of daily life."

The export of gold is a sign of India's growing poverty and of the undesirable trend of our foreign trade. The favourable balance of trade, which is a necessity in the case of a debtor country like India, having practically disappeared, we are exporting gold to keep solvent. Whatever may be the view of our gold exports taken by the Government or the world at large, it means living on capital, which is as dangerous a process for a nation as for an individual.

Total gold exports up to March 24th, 1934, amounted to over 174 crores of rupees. It is remarkable that the creation of purchasing power equal to 174 crores has had no effect in raising prices. The Calcutta index of prices was 89 in February 1934, as compared with 97 in February 1932 and 99 in February 1931. Under normal conditions prices would have risen, for the additional purchasing power acquired by the people by the sale of gold would have increased the general demand for goods and services. But under the present abnormal conditions, so far as gold has been sold by the peasants, it has only enabled them to pay their debts and taxes or to buy necessities—i.e., it has only served to replace some of the purchasing power lost by them on account of the fall in the prices of their products and

reduced exports. This is the probable explanation of the failure of Indian prices to rise—otherwise a puzzling phenomenon.

We are still sticking to the 18*d.* sterling exchange. The least that can be done to encourage exports is to lower the rate of exchange. That would increase the burden of the Home Charges, but the injury to the export trade on account of a high rate of exchange is a more serious evil. We went off the gold standard, following Britain's lead. The next step is going off sterling and leaving the rupee to find its own level. We shall be forced to take this step sooner or later. Unless Indian exports miraculously revive, it will be more and more difficult for the Government, in the coming years, to maintain the 18*d.* exchange. For gold exports are the main support of exchange at the present time, and gold exports cannot continue indefinitely.

THE PAST AND THE PRESENT

India under the Moghul kings offers the strangest contrast to India at the present time.

It seems as if no importance was attached, in the old days, to a stable exchange, for there never was any. India under the Moghuls had trade relations both with Eastern and Western countries. The principal coin used

over large parts of Northern India was the rupee (of about the same weight and fineness as the present rupee) and the exchange value of the rupee fluctuated according to the gold value of silver. In chapter xxxix of his work entitled *Generale Beschrivinghe van Indien*, first printed in 1638, Van Twist, while describing the gold and silver coins current on the west coast, says:

"It may be stated that money has not always a fixed value, but often rises and falls, according to the rate of exchange."[1]

And many "Benjanen," as Van Twist calls them, made a living by buying and selling foreign gold and silver coins. They used to buy gold and silver which Dutch and English ships brought to India from Europe, and Moorish vessels from Aden and Persia, at favourable rates, and sold them at higher rates to those who wished to carry them to places in the interior. It is not stated that the instability of exchange ever brought trade with foreign countries to a standstill. Even if it hampered trade, our kings did not worry about it. If it is a privilege to be a debtor country, and to have heavy "Home Charges," Moghul India did not enjoy this privilege; nor did she enjoy the real privilege of being served by European civil and military officers

[1] "Want't is te weten / dat het geldt niet altijdts eenen gesetten prijs hout / maer dickwijls op / ende af slaet / nae dat de wissel gaet" (p. 59).

and men interested in the maintenance of exchange at a high rate.

And then these Moghul kings, not being instructed in the science of economics, took a strange, and certainly foolish, view of the exports of gold and silver. They cut off the heads of those who sought to make a profit by exporting the precious metals! According to Terry, it was "a crime not less then capitall" to export gold and silver. Van Twist tells us that, although India possessed neither gold nor silver mines, her hoards of the precious metals grew daily, since gold and silver were brought to India in large quantities by foreigners, who were not permitted to take them out of the country.[1]

"What a wrong-headed view of gold and silver!" the reader will exclaim. "Are not hoards of gold and silver better employed when they are converted into sterling investment, or when they are used to increase the flow of international trade?" Perhaps they are, and perhaps they are not. So far as the flow of international trade is concerned, the question may be asked if it is the duty of India alone to keep up her demand for foreign commodities. Why do not other countries, far richer than India, take a less national and more international view of their hoards of

[1] "Want alhoewel hier noch Gout / nochte Silver Mijnen te vinden sijn / so wort het met groote menichte / vande uyt landers haer toeghevoert / die het niet weder moghen uyt voeren." (p. 25).

gold? If they bought more of our goods, we might be able to pay our debts out of our income, instead of having to draw on our capital for that purpose.

The history of the rupee exchange provides a good illustration of the conflict between British and Indian interests which has been the chief feature of our economic life in recent years. The 2*s.* exchange was forced upon us in 1920, in spite of our loud protests against that mistaken policy, and so was the 18*d.* gold rate in 1927. And the 18*d.* sterling rate will be maintained in spite of dwindling exports until it breaks of itself, which is only a question of time.

I would not have referred to this conflict of interests but for the "safeguards" regarding exchange and commerce which, in one form or another, will be included in the new Constitution. India thoroughly distrusts these "safeguards." We believe that we are the best judges of what is good for us, and, considering the manner in which questions of vital importance relating to trade, exchange, and currency have been dealt with in the past, who will say that India's distrust of "safeguards" is not well founded?

THE QUESTION OF ADJUSTMENT

The kindness of the Editors permits me to add this section in the proofs, to call attention to recent trade statistics.

During the ten months April 1st, 1933 to January 31st, 1934, exports of merchandise amounted to 122·3 crores and imports to 95·6 crores, as compared with exports of 110·6 crores and imports of 112·2 crores in the corresponding period of the preceding year. Exports had increased which, accompanied by a decline of imports, has given us a substantial surplus of exports over imports.

This favourable balance of trade has led many people to suppose that costs and prices in India have finally become adjusted to world costs and prices at the 18*d.* sterling ratio. The question of adjustment is of more than academic interest, and deserves a careful examination.

As regards prices, it is well known that, not only in India, but in other countries which have abandoned the gold standard the movement has been in the downward direction, excepting a few countries which have resorted to inflation. Immediately after the abandonment of the gold standard prices tended to rise, but the movement of average prices, where no policy of inflation was adopted, in the words of *World Economic Survey, 1932–33*

"followed in every case the same general course as in the countries still adhering to gold."[1]

Is that the meaning of the process of adjustment? The rupee is not linked to gold, but rupee prices are behaving like gold prices!

The explanation is simple. The countries adhering to gold have met the competition from depreciated currencies by fresh deflation and increased trade restrictions. The tariff war, particularly, continues.

The revival of exports is satisfactory, but figures of foreign trade for a short period afford little ground for an optimistic view of the process of adjustment, or the elasticity of our economic system.

Between 1921–2 and 1924–5 exports of Indian merchandise rose from 231 crores to 385 crores. In 1921–2 there were net exports of gold amounting to about 3 crores. But between 1922–3 and 1924–5 India imported 144 crores worth of gold. The Hilton Young Currency Commission concluded that the rupee was not over-valued at 18*d.* gold, for if such had been the case, the over-valuation of the rupee would have been reflected in adverse conditions in the general trade of the country.

But we know now that the growth of exports notwithstanding, there had been no adjustment of costs in India to costs in other countries.

[1] A League of Nations publication, pp. 41–2.

The structural changes in agriculture in Western countries, due to biological and mechanical progress, were bound to reduce our exports—which they did a few years later. Economic causes work out their effects slowly. In this they are like the mills of God.

Indian agricultural methods had not changed then, and they have not changed now. In fact, under the existing conditions of land-ownership, it is impossible to develop large-scale farming with power-driven appliances in India.

Costs in Indian agriculture possess very little elasticity. The Hilton Young Commission conceived the problem of adjustment of costs in agriculture to the higher gold value of the rupee as that of reduction of agricultural wages. What worried the Commission was whether it would be possible to check "the rising tide of wages" in rural areas. They were reassured by the study of index numbers of wages in rural areas, compiled by the Bombay Labour Office, which indicated "a general tendency to improvement in the wages of the labourer," and the Commission thought that the rise of wages "would facilitate adjustment to falling prices."[1] But over a large part of the country the peasant works on the land himself, assisted by his family. Hired labour is employed to a comparatively small extent, and, then, the hired labourer is, for the most part, paid

[1] *Report*, paragraph 192.

wages in kind, not in cash. As the price of agricultural produce rises and falls, wages paid in kind are automatically adjusted to the change.

All this is well known. Still, an example may be given.

According to the *Farm Accounts in the Punjab, 1931–32* by Sardar Kartar Singh, the total expenditure incurred in 1931–2 on a farm of 27¼ acres in the Lyallpur District was Rs. 708–9–6, of which hired labour represented Rs45–6–6, or about 6½ per cent. The *Farm Accounts* says :

"Four members of the tenant's family worked on the farm and were assisted by casual labour for the harvesting of certain crops. Permanent labour was not employed this year as the members of the family were quite sufficient to carry on the cultivation work. The picking of cotton was done by women labourers at one-twelfth share of the total produce. The rate of payment in the case of *jhoka*[1] was one seer per maund of *shakkar*[2] produced. The rest of the crops were harvested entirely by the tenant without any help from outside. The winnowing of wheat and gram was done by the labourers at the rate of two seers per maund."[3]

The chief items of expenditure were : upkeep

[1] Labourer feeding the furnace.

[2] Raw cane-sugar.

[3] p. 188. This is a publication of the Board of Economic Inquiry, Punjab.

of bullocks, 36 per cent of total expenditure (Rs.253–11–8); land revenue, 29 per cent (Rs.204–8–9); and water-rate, 17 per cent (Rs.121–2–0). Under well-irrigation the cost of water is much more heavy.

It will appear that the main items of our costs are comparatively inelastic. Further, whatever be the extent of the fall in costs in Western agriculture, the costs in India will remain what they are until bullock-power is replaced by motor-tractors, and until the heavy burden of the land revenue and the water-rate is substantially reduced. As regards the land revenue it may be noted that it has to be paid even when the net income of the cultivator is negative. It is not a fixed proportion of net income.

In view of the comparative inelasticity of our costs, all talk of adjustment of Indian prices to prices in other countries is meaningless.

The revival of exports in 1933–4 is due to temporary causes, and will be followed by a setback. Attempt is being made in the chief producing countries to restrict the supply of primary products, and the rate of growth of stocks has become slower. That probably accounts for the increase in our exports. But the causes which led to over-production have not been permanently removed. The means to greater and cheaper production exist, and they will be used again to the disadvantage of countries in the unhappy position of India,

with a heavy burden of foreign obligations, a top-heavy administration and practically irreducible costs of production.

In view of the difficulty of adjusting costs in India to those in other countries, it will be an act of wisdom to bring about such adjustment through exchange, that is by allowing the rupee to find its own level.

The linking of the rupee to sterling, as we have seen, helped us only for a few weeks or months. But it has no significance now when practically the whole world is off the gold standard, and some of our rivals have reduced the value of their currencies below the sterling level.

4. THE PUBLIC DEBT OF INDIA

By PROF. K. T. SHAH

I. THE VOLUME OF DEBT OBLIGATIONS

THE TOTAL interest-bearing obligations of the Government of India, on March 31st, 1932, is given by the Controller of the Currency, in his annual report for the year 1931–2, as follows :

Assets

(In crores of rupees)

Interest-yielding assets held against the obligations—	
(i). Capital advanced to railways	752·33
(ii). Capital advanced to other commercial departments	25·48
(iii). Capital advanced to Provinces	164·96
(iv). Capital advanced to India States and other interest-bearing loans	20·43
Total interest-bearing assets	963·20
Cash, bullion, and securities held on Treasury account	41·91

Liabilities

(In crores of rupees)

In India—	
Loans (*a*)	422·70
Treasury bills in the hands of the public	47·54
Treasury bills in the paper currency reserve	49·66
Ways and Means advances	9·50
Total loans, etc.	529·40

Liabilities—continued

Other Obligations—	
Post Office Savings Banks	38·22
Cash certificates	44·59
Provident funds, etc.	72·86
Depreciation and reserve funds	17·51
Provincial balances (*b*)	3·82
Total other obligations	177·00
Total in India	706·40
In England— (In millions of £)	
Loans (*a*)	313·34
War contribution	16·72
Capital value of liabilities undergoing redemption by way of terminable railway annuities	48·72
India bills	—
Imperial Bank of India loans	—
Provident funds, etc.	0·81
Total in England	379·59
(In crores of rupees)	
Equivalent at 1*s.* 6*d.* to the rupee	506·12
Total interest-bearing obligations	1,212·52

Balance of total interest-bearing obligations not covered by above assets (in crores of rupees) 207·41.

(*a*) These figures represent the nominal amounts of loans outstanding, and also include comparatively small amounts of expired loans which do not bear interest.

(*b*) The figures represent those portions of Provincial balances which bear interest, either because they form part of the old Famine Insurance Fund or the present Famine Relief Fund, or because they have been placed with the Government of India on fixed deposit.

2. CERTAIN ADJUSTMENTS TO GET AN ACCURATE IDEA OF THE VOLUME

It will be noted that: (1) this total of Rs. 1,212 crores of debt includes only the interest-bearing obligations, leaving out considerable amounts which do not require interest to be

paid. (2) Further, the sterling debt of the Government of India, shown as equivalent, roughly, to £380 million, is converted at the present rate of 1*s*. 6*d*. to the rupee, and counted as equivalent to Rs.506 crores. But there is no guarantee that this rate would be in operation when the capital of the sterling debt is due for repayment. The more normal rate, as shown by the experience of 1920–4, when both the rupee and sterling were fluctuating, is about £1 = Rs.15. Hence the true burden of this sterling debt must be reckoned to be at least 12½ per cent more than it is represented in the above statement. The real burden of this sterling debt, moreover, should yield, properly speaking, a much larger capital sum, since (*a*) the conversion terms attached to several of the sterling loans are particularly favourable to the lender, while (*b*) the universal exemption of interest on sterling securities from the income-tax of the Government of India, makes their capital value much greater. The cash liability in regard to pensions and superannuation allowances—both political and ordinary—is also not included in the above statement.

3. MODE OF TREATMENT—PRINCIPLES OF ANALYSIS

Such as this aggregate debt is, a proper appreciation of it requires that we analyse it in its various constituent parts. Several principles

for analysing these obligations have been adopted, e.g. distinguishing between productive and unproductive debts; or the classification of the debt according to the reasons which led to the incurment of each item; or according to the forms of the securities offered. For our purpose, however, we shall adopt a combination of the historical and the economic method, whereby the total debt will be analysed into two main groups: (A) the pre-mutiny debt incurred by the East India Company, and passed on to the Government of India under the British Crown; and (B) the debt incurred by the Government of India since the Dominion of India came directly under the British Crown. In each division, we shall further analyse the debt according to the specific reasons, wherever they could be traced, which led to the incurment of each particular debt, and trace the economic consequences of each such category of debt.

4. JURIDICAL NATURE OF THE INDIAN PUBLIC DEBT OBLIGATION

Before, however, we proceed to an analysis of the total debt, it must be premised that, with very few exceptions, the entire debt of the Government of India rests solely upon the credit of the Government of India. Apart from the railways not yet acquired by the State, and such small items as the Bombay

Development Loan, no specific assets, or sources of revenue, are pledged as exclusive and particular security for any class or item of debt. Secondly, the form of the debt—the bonds, promissory notes, acknowledgments of the debt—is, in each instance, an obligation of the Government of India pure and simple, without any specific pledge or authority of the Indian people.[1] Thirdly, no third party, like the British Imperial Government, is in any way interested or concerned, either as guarantor or in any other capacity, for the due fulfilment of these obligations. They are, juridically speaking, entirely between the Government of India and their individual creditors. Fourthly, if and when a federal system of government is introduced in India, and parts of the total debt have to be allocated to the several federal units of the present British India, such allocations would only be for purposes of accounting, rather than as indicating a divided liability. The obligation is, and must therefore remain, a national liability, until it is either discharged or otherwise disposed of.

Bearing these peculiarities in mind, let us now proceed to an analysis, on the basis adopted above, of the aggregate of the Indian national debt.

[1] See Appendix I. of the Congress Committee's Report on the Foreign Obligations of India.

5. CLASSIFICATION OF THE DEBT ACCORDING TO ORIGIN

The subjoined analysis is compiled from the Annexure to the Report of the Congress Select Committee on the Financial Obligations between Great Britain and India, prepared in 1931.

I. Debt incurred by the East India Company on account of:

(1) Compensation paid to the East India Company for their capital and assets; and for the payment of dividends on stock;

(2) The Company's wars and annexations;

(3) Financial mismanagement of the Company:

(*a*) resulting in deficits in current administration, made good out of borrowed funds;

(*b*) interest paid out of revenue to the guaranteed railway companies up to 1858;

(4) Administrative deficits of the British Overseas Possessions paid out of the Indian Exchequer.

II. Debt incurred by the Government of India since the transfer of the administration of India to the British Crown:

(1) Due to wars and expeditions:
- (*a*) Minor expeditions; e.g. Tibet, Abyssinia, Chitral, China, etc.;
- (*b*) Second Afghan War (1878–9);
- (*c*) Conquest and administration of Burma (1886–7);
- (*d*) The extraordinary charges of the European War (1914–18);
- (*e*) Contributions to the European War;
- (*f*) Ordinary deficits caused on account of the European War;
- (*g*) Extraordinary military and political charges in connection with the European War borne by India;

(2) (*a*) Political burdens, such as maintenance of British embassies and consulates at India's expense, in Afghanistan, Persia, etc.;
- (*b*) Payments of political subsidies to Afghanistan, Nepal, etc., out of Indian revenues.

III. Debt due to rupee-sterling exchange.

IV. Debt due to ordinary financial deficits.

V. Debt due to the so-called productive works:
- (*a*) Railways;
- (*b*) Irrigation works;
- (*c*) Telegraph and Telephone Services;
- (*d*) Other public works.

VI. Debt due to famine relief.

6. DIFFERENCES IN AGGREGATE VOLUME OF DEBT EXPLAINED

The amount of the debt given against each of these several items would, if totalled up, make a much greater aggregate than the aggregate shown above. The explanation, however, of this discrepancy is found in the fact that, during the long period under review, a considerable proportion of the debt has been paid off from the current revenue, which therefore does not show itself in the net subsisting volume of obligations presented above. But, nevertheless, the items just mentioned have formed part of the so-called public debt of India, and do form part even to-day, proportionately speaking, for the simple reason that, had the debt shown above to be occasioned by any of these various reasons not been incurred, the aggregate now outstanding would have been correspondingly smaller; and the liabilities of India proportionately less, or her assets proportionately more. We are, therefore, entitled to take account of all the obligations as analysed above.

7. THE REAL BURDEN OF THE EAST INDIA COMPANY'S LEGACY OF DEBT (I)

Taking first the legacy of debt left by the East India Company, the first Finance Member of the Government of India, Mr. James Wilson,

in his Budget speech, represented the debt at £97·85 million. This, however, must be taken as the net figure of the obligations left by the Company. No exact figure is it possible to give on this account. It did not include: (1) the amounts paid out of the current revenue towards liquidation of existing debt or avoidance of new debt; (2) the amounts payable under the Government of India Act, 1833–58, to the East India Company for the redemption of its capital stock, lasting up to 1874, and aggregating about £14½ million since 1858; (3) the cost of suppressing the risings of 1857, estimated by the same authority at £38·4 million. If we total up these figures, the real debt legacy left by the Company would amount to:

	Million £
Net volume of debt taken over from the Company	97·85
Redemption of the Company's capital stock, and payment of dividend up to 1814	14·50
Cost of suppressing the risings of 1857	38·41
Total	150·76

or, in round terms, £150 million.[1]

Analysed further according to the sources or occasions under which this aggregate debt was incurred, the same burden may be represented as follows:

[1] For a further treatment, explanation, and figures, cf. the Annexure to the Select Committee's Report on Financial Obligations, chap. ii.

		In million £
(1) Amount due to forty years repayment of the Company's 10½% dividend, being £630,000 per annum (1834–73)		25·02
(2) Capital redemption account deficiency, 1874		4·58
(3) Amounts due to extra Indian wars and expeditions:		
Expeditions to Java, Egypt, Moluccas, Mauritius, etc.	5	
Wars—Afghan, Burman, Chinese, and Nepal	35	
Miscellaneous civil charges—administrative deficits of British possessions outside India, paid out of Indian revenues and subsidies	15	
		55·00
(4) Cost of suppressing the risings of 1857		38·41
		123·01
Railways deficit in guaranteed interests		2·24
Total[1]		125·25

8. CAVEAT RE: ACCURACY IN FIGURES

These figures *inter se* differ, no doubt, but it is impossible to give anything like an accurate figure of the net obligations charged to India as a legacy from the East India Company, for the following reasons:

(*a*) The Company's accounts were exceedingly badly kept, and constant confusion occurred between the territorial charges proper, and the commercial losses of the Company, at least in the earlier years up to 1814;

(*b*) The figures above are given in £, but the revenues were received in rupees, and the conversion of rupees into £ at an arbitrary rate of exchange makes the above figures more illustrative than real;

[1] The difference between this and the previous total may be explained by the fact that, whereas the latter includes the consequences of ordinary deficit, the former makes no allowance for that factor. Cf. the Budget speech of Mr. Wilson as to the size and frequency of the Company's revenue deficits.

(*c*) The complication of accounts due to cross payments and obligations, as between the British Government and the East India Company, and as between the Government in India and the home authorities of the Company, prevents any accurate computation or analysis of the financial obligation ; and

(*d*) The confusion between capital and revenue accounts tends in the same direction.

9. LEGAL LIABILITY FOR THE COMPANY'S DEBT

For our purpose, we may take the net debt legacy of the East India Company at an official figure of £112·35 million, including the compensation to the Company, and £2·25 million on account of the guaranteed interest of the railway companies.

Of this debt, roughly £15 million in round figures may be taken as the commercial debt of the Company ; £55 million as the extra Indian war debt ; £15 million for the miscellaneous charges of outlying settlements, etc., and the balance may be debited to the cost of putting down the disorders of 1857.

10. NO FAIR LIABILITY FOR WATERED STOCK, AND NO ASSETS

Not one of these items could, in justice, be charged to India for the following reasons :

The Company's commercial debt could not be charged to the people of India, firstly, because the nominal capital stock of £6 million was made up, not so much by actual contribution received from shareholders, but by inflated dividends paid out of borrowed moneys. So chronic and heavy was this abuse that Parliament had to legislate by way of restrictions of the dividends from 1767 onwards. Secondly, the commercial assets of the Company were not kept apart, even after 1833, when its commercial existence was terminated by an Act of Parliament. Such as they were, they were immensely over-valued ; but, even so, had they been realised and allowed to accumulate at compound interest, no fresh obligation would have resulted against the Indian people. The obligation created by the Act of 1833 would then have been self-liquidating, and the Indian people would have been relieved of that burden for forty years.

II. THE COMPANY'S ACTIVITIES RICHLY BENEFITED BRITAIN, NOT INDIA

The Company's monopoly of trade with the East Indies brought very considerable gains to England, directly as well as indirectly, in the shape of actual contributions made by the Company towards the relief of British debt—e.g. in the South Sea Bubble—and in the case of collecting revenues on the Company's trade

—e.g. tea duties. The general assistance, moreover, rendered by the Company's enterprise to the growth of British prosperity by providing handsome employment of British capital and labour during a hundred years of exploitation in India was not inconsiderable. The Company's management of India's territorial as well as the commercial finances was so inefficient that no assets were left at the time the Company was wound up by an Act of Parliament. Hence, being a bankrupt concern, practically without assets, no compensation was due or payable, at least, by the people of India, to the East India Company on its ceasing to exist by an Act of Parliament.

12. BRITISH GOVERNMENT, NOT INDIA, LIABLE FOR COMPENSATION TO THE COMPANY, IF ANY

If any compensation at all, therefore, was in justice or equity due to the East India Company, the same ought to have been paid by the British Government and not by the people of India. For acquiring their other Colonies and Dominions, the British Government have borne all the outlay. In the case of the Indian Dominion, the British Government has not only never paid a single pie by way of acquisition, but has, on the contrary, received very considerable aid and benefits from this

Dominion, without counting the contributions made out of Indian revenues towards the expenses of the British settlements at St. Helena, Cape Colony, Singapore, etc. For all these reasons, the commercial or compensation debt of the Company, aggregating to £15 million in round terms, as settled in 1858, should have no place in the Indian debt schedule. The same principle should also apply to the corresponding charges paid from 1833 to 1858, at the rate of £630,000 per annum, representing a 10½ per cent dividend on the Company's nominal capital, which would relieve India of a further £15,750,000 of debt.

13. THE WAR DEBT OF THE COMPANY

The war debt incurred during the régime of the East India Company, and mentioned above, represents only the cost of the extra-Indian wars waged for reasons of British policy outside the frontiers of modern India. That does not mean, however, that the wars on the Indian continent, waged by the Company from 1743 to 1850, had caused no deficits or occasioned no debt. But, for purposes of convenience in calculation, we will leave these out of account. The exclusively non-Indian wars waged in Java, Burma, Afghanistan, Persia, and Egypt had no connection with the requirements of Indian defence. They were

dictated exclusively by reason of British policy and, as such, the authorities of the Company itself had taken exception to their costs being charged to the Company accounts. As early as 1808, the Company had asserted their right to an aid from the British public for liquidating the Indian debt incurred "in prosecution of interests of purely British origin, and not fairly chargeable to India"; and the President of the Board of Control, corresponding to the Secretary of State of to-day, replied, in his letter dated January 13th, 1809, admitting that "the Company had also a right to expect that the public [British public] should defray the cost of all hostile operations owing to the state of war in Europe, whether India becomes the scene of them or was likely to become the scene."[1]

The Burmese War (1823–4) added £13 million, whereas the First Afghan War (1838–40), which was universally admitted to be a blunder in policy and an offence in economies, cost much more, though it is impossible to give any accurate figure. Taking, however, the net balance of this debt as given above,[2] i.e. £55 million, the finances of the Company's Government must have deteriorated at least to that extent; for, had these ventures not been undertaken, and had their burdens not fallen

[1] See Mill's *History of India*, Book I., Vol. III., chap. viii., p. 257.

[2] *Ante*, p. 134.

on the Indian revenues, the latter would have been better to that extent. On grounds of political justice and international equity, therefore, this burden is entirely unchargeable to the people of India. On grounds of strict legality—following the spirit of the resolutions adopted in 1773 by the House of Commons, namely :

(1) That all acquisitions made under the influence of military force or by treaties with foreign Princes *do of right belong to the State* ;

(2) That to appropriate acquisitions so made to the private emoluments of persons entrusted with any civil or military powers of the State *is illegal*—

the same conclusion is unavoidable. For the *State* mentioned in these resolutions was the sovereign British authority, while the private persons contemplated therein included the East India Company as a whole. It was a chartered corporation, but a subject of the British Crown created by an Act of Parliament, and holding sovereign authority only by way of delegation from the British Crown.

14. DEFICITS OF EXTRA-INDIAN POSSESSIONS OF BRITAIN

The deficits of the British possessions outside India, mentioned above, could not have the slightest justification to be charged to the Indian Exchequer, which was maintained separately ever since the Regulating Act. It is

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impossible to give an accurate estimate of the charges incurred on this account, but the figure mentioned above[1] may serve as an illustration, having been compiled with the utmost moderation from official statistics and reports.

15. COST OF SUPPRESSING DISORDERS IN 1857 (*a*) BRITISH PRECEDENTS

As regards the cost of suppressing the rising of 1857, it was in the interests of the British Government to keep India and to suppress those disorders. The cost, therefore, must be charged to the British Exchequer only. There is plenty of precedent for such a contention, even within the British Empire. The British Government have borne all the costs of the acquisition, settlement, and development of their Colonies, till they became the present important Dominions. The cost of the Boer War, which was waged with an independent people, who now form part of the Government of South African Dominions, has likewise been borne exclusively by the British Exchequer, without counting the gifts made by Britain for the restoration of the wasted Boer regions after 1902. The cost, also, of the Irish Rebellion in 1916–21, aggregating several hundred million sterling, has similarly been borne entirely by the British Exchequer.

[1] *Ante*, p. 134.

(*b*) PRECEDENT OF THE UNITED STATES AND THE PHILIPPINE ISLANDS

It may be also added that the United States of America acquired the Philippine Islands from Spain after the Spanish War at a considerable cost to the American Exchequer. But, when autonomy was granted to the Filipinos in their own country, the American Government never stipulated that the original capital cost for the acquisition of the territories should be borne by the Filipinos. A comparison of the benefits received by Britain from India and from Ireland, and by America from the Philippine Islands, makes the contrast between the American and English practice on this question show glaringly against the vaunted British sense of justice and fair play.

(*c*) INTRINSIC INJUSTICE OF CHARGING THE MUTINY COSTS TO INDIA

These instances need only to be mentioned to point out the utter injustice of making India bear the cost of suppressing the disorders of 1857. Britain was interested in retaining India within her own hands and for her own commercial and economic benefits. The suppressing of the rising was thus a British necessity, and a British advantage, for which it is but fair that Britain should pay. This cost, it may be added, was very much inflated by the British Government charging the expenditure, on account of

the British regiments and battalions sent to India for this purpose, *for the whole period* of the troops' absence from England. As already mentioned, the figure of £38 million represents only the net addition to the debt of India made during the Mutiny years. The real cost was probably much higher. But, taking even that figure, at least that amount ought to have been charged to Britain exclusively, at the time that the East India Company was terminated.

16. CONCLUSION ABOUT DEBT INCURRED BY THE EAST INDIA COMPANY

Had all these burdens been fairly investigated at the time that the transfer was made of the Government of India to the British Crown, on grounds both of justice and equity, amply supported by precedent, the Indian Exchequer would have been relieved of at least £125 million of debt, which would have brought to the new Government of India a substantial credit balance.[1]

17. PUBLIC DEBT OF THE GOVERNMENT OF INDIA SINCE 1858 (II)

As regards the debt incurred after the Government of India had been transferred to

[1] In 1858 the net debt burden was £97½ million in round terms. The relief under the various heads just summarised would have aggregated £125 million, leaving a credit balance for India of £27½ million! The £2¼ million of debt due to deficits in guaranteed interest to railways will be dealt with later.

the British Crown, the aggregate of Rs.1,212 odd crores has been caused by one or more of the following:

(1) Wars and expeditions outside India;
(2) Political burdens of an extra-Indian character placed upon the Indian Exchequer;
(3) Financial mismanagement resulting in deficits in ordinary revenues;
(4) Losses due to exchange manipulation;
(5) Debt incurred on account of Famine relief;
(6) Debt incurred for the construction or acquisition of Railways;
(7) Debt incurred for the construction of Irrigation Works;
(8) Debt incurred for the building up of commercial assets in the Post Office in respect of telegraphs and telephones;
(9) Other public works; and
(10) Miscellaneous.[1]

18. WAR DEBT BETWEEN 1858 AND 1914

Regarding debt caused by wars and extra frontier military charges, the total burden in this respect is very difficult to compute in

[1] The aggregate of Rs.1,212 odd crores includes, of course, the debt legacy left by the Company. The net figure on that account may be taken at Rs.112 crores (cf. *ante*, p. 134), converting the £ into Rs. at the current rate of those days, i.e. 2*s.* = R.1. So the balance made up under the Crown amounts to Rs.1,100 crores in round terms, or 1,165 crores, if we convert the sterling debt at 1*s.* 4*d.*

exact terms, despite better accounting under the present régime. We may, however, for the purpose of convenience, divide the debt occasioned by wars, military expeditions, and extraordinary charges connected with wars, into two main periods: viz. debt incurred before the European War of 1914–18, and that occasioned by the European War. In the former is included, besides minor expeditions to China, Chitral, Tibet, Abyssinia, etc., the Second Afghan War, which cost nearly Rs.23 crores, against which Britain made a small contribution of £5 million, *thereby recognising in principle the real liability of Britain for these consequences of the British policy in the world.* The Third Burmese War, together with the deficits in the Burmese administration since its annexation, is also included in that group. The latter alone would aggregate roughly Rs.100 crores as follows[1]:

	Crores Rs.
Cost of Burmese War from 1823–87	18
Deficits in administration from 1886–7 made good out of Indian revenues	15
Pro-rata charges on Burma for 45 years' defence, at Rs.1 crore per annum	45
Pro-rata charges for the economic development of Burma, including interest on Burmese railways	22
	100

[1] See Annexure to Congress Select Committee's Report already quoted. The cost of the First Burmese War alone amounted to Rs.13 crores, less the indemnity in cash obtained in 1823. This figure may be said to be already included in the debt taken over from the East India Company. The cost of the Second (1852–3) and the Third (1886–7) Burmese Wars were relatively lower, 5 crores for both is a very modest figure.

19. BURMESE WARS AND DEFICITS

The same argument may also apply to the North-Western Frontier in regard both to its economic development and administrative deficits, aggregating, by 1914, Rs.5½ crores. Before 1886, Burma was not part of the British Indian Empire, and, until the decision of the Burmese people in November 1932, it was likely that Burma might be separated from India. The cost of the Burmese wars, therefore, and the deficits in Burma's ordinary expenditure should, in justice and equity, never have been cast upon the Indian Exchequer. The real advantage of the conquest and annexation of Burma, consisting in the exploitation of the vast resources of that country in oil, wood, and minerals, have fallen to the lot of British *entrepreneurs*, just as did the advantage of the Chinese wars for the maintenance of the British merchants' opium traffic.

20. SECOND AFGHAN WAR

The Afghan War of 1878–9 was exclusively a consequence of the British foreign policy dreading the advance of Russia in Central Asia and the consequent anxiety to maintain a balance of power with that country. The Gladstone administration, which in 1880 succeeded that of Disraeli, recognised these facts by making a small contribution towards the expenses of that wholly extra-Indian war.

21. RATIONALE OF INDIA'S CASE

Under the Act of 1858, the revenues of India were clearly made not applicable for purposes of trans-frontier wars and expeditions, except with the consent of Parliament. The fact that Parliament has not refused its consent in each case is only an evidence of the manner in which the British Parliament has discharged its self-constituted trust regarding the welfare of the Indian people. But it does not alter the plain fact of the matter that India has not waged these wars for any benefit to herself; that these wars were forced upon her exclusively by the exigencies of the British foreign policy; that the benefits, if any, derivable from such wars have gone exclusively to non-Indian interests; and that, therefore, these burdens should, in equity, never be chargeable to the Indian Exchequer.

22. AGGREGATE BURDEN OF EXTRA-INDIAN WARS BEFORE 1914

Let us put down this net aggregate burden, without reckoning the pro-rata charges for the defence and economic development of Burma, at Rs.30 crores in round terms[1]—a very

[1]

Cost of	*Crores of Rs.*
Second Afghan War (23 minus 5 crores) . .	18
Third Burmese War	3
Minor expeditions, and frontier wars . .	9
Total . . .	30

modest estimate, especially in view of the detailed statement given in an appendix to the Welby Commission's Report.

23. THE BURDEN CAUSED BY WORLD WAR, 1914–18

The European War, 1914–18, has occasioned another burden to India, eventually translating itself into corresponding additions to the Indian public debt, as follows[1] :

	Rs. crores
(1) Special war contribution of £126 million made in March and September 1918, equivalent, at 1*s.* 4*d.* exchange, to .	189
(2) Increased military and political charges, on account of the war, upon Indian budget, counting only the excess over normal	150
(3) Increase in civil expenditure directly due to the exigencies of the war	25
Total . .	364

24. THE CASE IN LAW AGAINST THE WAR CONTRIBUTION

Under the terms of the Government of India Act of 1858, reproduced in the Government of India Act of 1915, the revenues of India cannot be applied for purposes of extra-frontier wars without the consent of Parliament. Section 20 of that Act says : " The revenues of India shall be received for and in the name

[1] The details are computed in an Annexure to the Congress Select Committee on the Financial Obligations between Great Britain and India by the present writer, pp. 71, 74.

of His Majesty, and shall, subject to the provisions of this Act, *be applied for the purposes of the government of India alone.*" By no stretch of interpretation can the war contributions of 1918 be regarded as "purposes of the Government of India." Hence, under the authority of this Act, there is no warrant for making the gifts by the executive decision of the Governor-General in Council. The Governor-General in Council is only an agent of the British Government. His powers are strictly limited by the terms of the Government of India Acts at the time in force. Under those Acts, neither the Governor-General nor the Legislative Council of the Governor-General had any power of the purse. The decision, therefore, to make a clear gift of £100 million made by the Viceroy's *Executive* Council in March 1918 is insupportable on grounds of constitutional law or practice, for the simple reason that the party making the gift had, under the Constitution, no power to do so. And though the latter gift of September 1918 was made by way of a resolution passed by the votes of the non-official members of the Supreme Legislative Council, subject to certain conditions which reduced the form of the "gift" from £45 million to £29 million, that, too, was wholly illegal and invalid *ab initio*, inasmuch as the Legislative Council had no power of the purse in those days. If the entire

Council had no such power, its non-official members had *a fortiori* no right or title to pass any such resolution which could be held valid in law. These gifts, therefore, being invalidated, could not be validated by any subsequent action of Parliament. The acceptance of the gift by the British House of Commons, without any change in the constitution of the Government of India—and without any amendment of sections 20 and 22 of the Government of India Act, 1915, particularly—does not, therefore, make valid what initially was invalid and illegal.

25. THE SAME CASE IN EQUITY

India has received no *quid pro quo* out of that European war. Britain has never made any contribution, with the solitary exception of £5 million on account of the second Afghan War, for wars waged by India within or outside India for reasons of British policy. The practice of international law affords no precedent for holding valid the "gift" made by India towards the expenses of Britain's European war.

26. THE EXTRA COST CAUSED BY THE EUROPEAN WAR

The extra cost due to the inflated military charges and political burdens arising directly out of the European War was similarly not

chargeable to India under the terms of the Government of India Act. In the strict theory of the law, these extra burdens are invalid *ab initio*, and therefore must be held to be not due from India.

27. CONCLUSION ABOUT WAR DEBT

We may conclude that the total burden caused to the Indian Exchequer by the wars of Britain aggregates roughly Rs.400 crores. In these India was neither interested, nor a consenting party; and, of course, she has derived no material benefit from these. This is the actual cost defrayed out of borrowed money. It takes no account of the charges in connection with these wars and expeditions made good out of current revenues of the Government of India. Nor is any allowance made in that aggregate of any interest on such amounts which were originally not due from India, but which have been charged to India unjustly. Finally, the above figure represents only the net money burden on account of the wars, without any consideration of the sacrifice in men and material forced upon India, during the administration of the country directly under the British Crown. These 400 crores must, therefore, be allowed as a set off against the nominal volume of the debt incurred by the present Government of India.

We have the high authority of the Parliamentary Committee, which enquired, in 1832, into the affairs of the East India Company, for saying :

"That part of the debt at interest, which is termed the registered debt, consists of sums raised from time to time on Loan at interest, and secured by bonds granted to the creditors by the Governor-General in Council (numbered and repayable by a fixed rule regulated by the order in which they are registered), wherein the amount borrowed is declared to be a loan to the East India Company, and the engagement is given for and on behalf of the Company to discharge the sum under certain conditions. *None of these conditions, however, give to the creditors any direct claim on the territorial revenues of India for the repayment of the sum thus advanced by them.* The first creation of the registered debt does not appear to have been directly authorised by the Charter of the East India Company, or by Act of Parliament ; but subsequent enactments of the legislature have fully recognised it, and in a manner which, it is supposed, has given to the creditors a claim on the territorial revenues of India for repayment of the money advanced by them to the Company."

28. EXTRA-INDIAN POLITICAL CHARGES BURDENED UPON INDIA

As regards the second category of debt incurred by the present Government of India, a table compiled by some members of the Welby Commission, and given in an Appendix to its Report, shows an aggregate, up to 1896, of unjustifiable charges thrown upon India on this account, of Rs.71·45 crores. The most considerable items included therein are :

	Rs. crores
The Second Afghan War . . .	22·31
Military railways on North-West Frontier	16·39
Baluchistan Agency	1·50
Permanent increase in the Army . .	16·28
Political subsidies to Afghanistan and other neighbours	2·85

We have, however, already allowed for some of these items, like the cost of the Second Afghan War ; while others, like the political subsidies to neighbouring powers, and costs of embassies and consulates, have been continued and have added to the burden since the above was compiled. The Afghan subsidy alone would aggregate Rs.6 crores up to 1918. The cost of the permanent Army, increased on account of the Russian scare in 1886, and the cost of the rearmament in the Kitchener régime with a view to keep up the Indian Army on standards required for European wars, would run into many more crores on the same basis of calculation.

This figure, therefore, of the extra-Indian political burdens charged to Indian account between 1858 and 1918 may safely be taken at Rs.50 crores. As no Indian interest has been served thereby, and as the Government of India has itself frequently protested against several of these charges being debited to India, the British Government is, in justice and equity, bound to assume this burden, really incurred at its instance and to serve its interests. Needless to add, no interest is allowed on any item in this group.

29. DEBT CAUSED BY THE EXCHANGE POLICY (III)

The story of the losses resulting to India, her trade and economic well-being, from the exchange policy imposed upon the Indian authorities by the British Government, ever since 1893 makes too sad and too long a reading to be incorporated in this brief survey. But even the barest summary must mention, firstly, the loss actually occurring in the finance accounts of the Indian Government directly because of the falling rupee since 1873; secondly, the clear loss occasioned by the Reverse Council's blunder of 1920; thirdly, the additional burden upon revenue due to the exchange compensation allowance to the non-Indian public servants of the State. These several items have been estimated in the

Annexure to the Congress Select Committee's Report on the Financial Obligations between India and Britain as follows[1]:

	Rs. crores
Cost of exchange up to the end of the nineteenth century .	87
Loss during 1920–1 on account of Reverse Councils . .	35
Loss due to exchange compensation allowance . . .	5
Total . .	127

Take this at Rs.125 crores in round terms. It represents the net loss brought to book, and measured in money, and makes no allowance for the indirect loss to the Indian trade and economic prosperity, nor to the depression in the value of hoarded silver in India. If we take the average balance of India's net exports at £40 million only, between 1893 and 1932, the loss, from artificially enhanced exchange, in trade alone would run to 300 crores. The higher exchange rate was forced upon India to give British traders and industrialists a concealed advantage in the Indian market, and, to some extent, a slight relief to the Government finances. But the mere sight of the above figures will suffice to show that the relief to the Indian Government's home charges—themselves a source of unjustifiable drain—was bought at too heavy a cost to the country's prosperity and the

[1] Cf. op. cit., p. 82. To the student anxious to study the entire question, reference must be given to *The Sixty Years of Indian Finance*, by the present writer, 2nd edn., 1927. Authorities are quoted in the Annexure.

people's well-being. And that without including in the above figures the loss to the people by the enforced depreciation of their silver wealth, amounting at least to 500 crores on a moderate calculation.

30. DEBT DUE TO FINANCIAL MISMANAGEMENT (IV)

It is impossible to calculate at all accurately the debt due to this perennial reason. The deficits in one group of years may seem to be set off by the surpluses in another, and so no clear balance can be struck. The injury wrought by the manner in which some of these surpluses were achieved escapes any notice altogether, by the lapse of time, though that is the most abiding injury so far as the people of the country are concerned. We shall, accordingly, take no more note of this item, however serious it might be in real incidence and lasting effects.

31. PRODUCTIVE DEBT: RAILWAYS (V)

The debt on account of the railways in India is officially considered to be a self-supporting item, and therefore classed as a productive debt. This, however, is an official fiction which does not at all correspond with facts. The figure given against this category of debt must be modified, at least by the following considerations. They are capable, if necessary, of a definite money expression :

1. The terms of guarantee to the original railway companies were very onerous to the Indian people. The return on capital being guaranteed, and paid from the revenues, there was no incentive to economy in construction, equipment, or maintenance. This has occasioned a waste of at least half the nominal capital invested in these company railways.[1] The deficit in the railway earnings, made good out of the public revenues, was stipulated in the original agreements to be repayable to the public exchequer if and when the railways began to make a profit. But this clause was autocratically waived by the Secretary of State in 1871, and all the arrears of interest accrued due were forgiven for ever to the companies, despite vehement protest from the Government of India, incidentally causing a loss of Rs.50 crores to the Indian tax-payer on that account only.

The terms of the guaranteed companies included a clause for the purchase of the companies' business by the State on the expiry of the term of the agreement. This was so worded as to permit of a heavy watering of the companies' stock. The result was a net addition to the capital burden of the railway debt, in respect of guaranteed companies since acquired

[1] For details in support of this argument, the reader must be referred to the Annexure and the *Sixty Years of Indian Finance* already cited.

by the State, which may aggregate 56¼ per cent of the original capital.

3. The losses due to onerous exchange in the railway agreements make another substantial watering of the so-called railway debt, which, therefore, stands in the books of the Government at a far heavier figure than the real, original value of the assets taken over by the State.

4. The loss due to the admittedly strategic lines is recorded during the last few years in the books of the Government. But, really speaking, the entire railway enterprise in India was originally inspired, and is still dominated, by politico-military considerations, which therefore prevent the railways from being built and worked as economically as it is possible to do in other countries. This item of loss, however, though very serious to the general national economy, is incalculable in monetary terms, and so will not be laboured upon any more. The clear watering, however, of the railway debt, and the consequent inflation in the figure on that account given above, is shown by the following figures :

	Rs. crores
1. Deficits of guaranteed interest made good out of public revenues, and surrendered for ever to the railway companies .	58
2. Interest on above at 4 per cent, as stipulated in the original agreements	72
3. Loss on strategic railways account	33
4. Bonus paid to guaranteed railway companies on acquisition by the State	50
Total .	213

without allowing anything by way of interest on the amounts outstanding on any account, from the date of their falling due to the present day.

This counterclaim of Rs.200 crores, in round terms, must therefore be allowed against the so-called railway debt, before it can at all be admitted as a fair valuation of the assets on that account. The railways are not an earning asset, except in periods of prosperity ; they are never directly productive as the irrigation works might be considered to be ; their construction and operation has been, from the start, on such wasteful lines that the vested interests preclude any early success at real economies in their working. Despite all those considerations, however, the railway debt may be admitted to be chargeable to India, subject to the counterclaim mentioned above.

32. IRRIGATION, POST OFFICE, OTHER PUBLIC WORKS

The debt incurred on account of all these items, though leaving much to be desired from the standpoint of due regard, in its inception and management, to the true interests of India, may nevertheless be admitted as justly productive debt, against the assets shown on the other side in respect of the same. No further comment is, therefore, necessary on this group of items.

33. FAMINE RELIEF DEBT (VI)

The debt incurred by the Government of India on account of its obligation to relieve distress caused by the failure of rains in India is another reasonable obligation that ought not to be demurred to in any statement of account as between Britain and India. There was provision, no doubt, since 1878, in the ordinary tax revenues of the country, to provide a regular contribution for famine relief; and it is the fault of the Government if the benefit of that contribution was not available every time that distress appeared in any part of the country on this account. But we cannot always present a bill in rupees, annas, pies for mere financial mismanagement; and so we need say no more on this head.

34. GENERAL CONCLUSION

Summing up this brief review of the interest-bearing financial obligations incurred by the present Government of India, we find that:

(*a*) For a very considerable amount—roughly 500 crores—of the existing debt charge, the Indian Government had no legal power to incur that burden, and the British Government was not justified in casting it upon India, either in equity, international law, or according to precedent in the British Empire itself.

(*b*) For the bulk of this amount—perhaps the whole of it—India has received no benefit at all which may be set off against the burden imposed on this account.

(*c*) Against the railway debt, there is a clear claim for over Rs.200 crores, in round terms and at a moderate calculation, as a set-off against the official figure of debt shown under that head.

(*d*) The losses caused by the exchange policy forced upon the Indian Government from Whitehall—counting only those which are capable of a clear, monetary expression, and which are due indisputably to this account—afford another counterclaim to India of Rs.125 crores, in round terms, against the aggregate of debt shown by the Government of India.

Without, therefore, counting incalculable items of real losses and damage to the country and her interests, the aggregate of counterclaims, or set-offs, justly admissible against the official figure of the public debt of the Government of India—Rs.1,212 crores—exceeds over 825 crores.[1] The Indian National Congress Select Committee on Financial Obligations (1931) has arrived at a much higher figure. But I have deliberately put it here at a lower amount, simply in order to make the case for India as reasonable and unanswerable as

[1] Cf. the Annexure to the Congress Select Committee Report for details and for explanation of variation in the figure given above.

possible. Those who ask for this matter to be judicially considered by an impartial tribunal on the model of the Irish Treaty do not aim at any repudiation of the just obligations due from India. Mr. Gandhi proclaimed, from his place at the Round Table Conference, that India would pay with the last drop of her blood whatever was found justly to be due from her. But she cannot be asked, in fairness, to shoulder burdens which are not hers in reality, which were imposed upon her originally as a piece of injustice and inequity, and which afford no proportionate benefit to the people of India. The balance remaining justly will not be questioned ; but the balance must first be carefully examined, and clearly determined in accordance with canons of equity and justice, of international law and usage. At a time that India is on the eve of changing the form and basis of her Government, it is but fit and proper that a clear and final account be taken of such matters. The purpose of this chapter is, therefore, to provide a basis for such enquiry ; and the writer hopes the *prima-facie* case presented above may prove sufficient at least for an enquiry to be ordered before an impartial tribunal.

5. THE LIMITS AND POTENTIALITIES OF AGRICULTURE

By PROF. RADHAKAMAL MUKERJEE

THE AGRICULTURAL situation in India as we have entered the third decade of this century has not been promising. Indeed, the present relation of agriculture and food-supply in India is a subject which even a casual investigator cannot study without serious apprehension. In the latter half of the nineteenth century commenced a phenomenal prosperity of agriculture throughout the world, facilitated by the introduction of scientific technique to farming, both intensive and extensive, and to animal husbandry, and by the discovery of virgin lands in distant parts of the world now brought into touch with the industrialised communities of the West. This same century witnessed a most marvellous expansion of agriculture, brought about by the introduction of canal irrigation by British engineering in Northern India. This expansion is a lasting achievement of British administrators, and can be seen at its best in the United Provinces, where the population expanded from about twenty millions during the times of Akbar to

forty-nine millions in 1931. It is in the Upper Ganges-Jumna Doab that we find, not merely the introduction of new and important money-crops unknown in Akbar's days, but also some of the most remarkable triumphs of canal and, recently, of hydro-electric developments in the world.

In Akbar's times the whole cultivable area in the Upper Doab was under cultivation, which, however, by no means extended so far to the forest line in the north as it extends at present. The eastern districts of the United Provinces, however, were full of great forests. Finch, travelling along the Ganges from Allahabad to Jaunpur, traversed "through a continuall forest." The cultivated area was small, indeed, comparing Abul Fazl's figures and present-day district statistics. Moreland concludes that the present area cultivated in the districts of Meerut, Saharanpur, Muzaffarnagar, and Etah (part) is only slightly larger than Akbar's acreage. On the other hand, along the Ganges from Benares to Allahabad, and also in Jaunpur, the increase is about fourfold, while towards Gogra it is sevenfold or eightfold. In the districts of Gorakhpur and Basti, cultivation has increased, at any rate seventeenfold, and more probably fortyfold. The largest increases in the Upper Doab were those of two-thirds and one-fourth increase in Bulandshahr and Aligarh respectively. But,

though agriculture has expanded little, crops and agricultural practices have been revolutionised in the Upper Doab. In Akbar's times this region, on account of the deficient rainfall, resembled the plain of Central India, with great expanses of dry cropping broken by oases of garden cultivation in places where efficient wells were possible or a stream lent itself to utilisation by the indigenous methods. The bulk of the land must have yielded the ordinary low-grade crops: millets and pulses, oil-seeds and some barley.[1] Wheat, which is at present the most important crop of this tract, representing about 18 per cent of the total cropped area in the province, could hardly have been grown. This is probably the explanation of the fact recorded by travellers, among them Sir Thomas Roe, that Jahangir's Court obtained wheat from Bengal.[2] It is scarcely conceivable that wheat should have been carried so far unless the country close to Agra was unable to supply all that was needed.

Cotton is also a new crop which has extended in recent times; but a rich crop, sugar-cane, which has grown in large quantities until

[1] Francisco Pelasert, a Dutch merchant who was in Agra at the time of Jahangir, mentions rice, indigo, bajra, kangni, urd, and moong as *kharif* crops; and wheat, barley, gram, and oil-seeds as *rabi* crops (see *Jahangir's India*, edited by Moreland, p. 48).

[2] W. H. Moreland, "The Agricultural Statistics of Akbar's Empire," the *Journal of the United Provinces Historical Society*, June 1919.

the middle of the last century in Muttra, Etawah, Fatehpur, and Allahabad, has declined or is not grown at all. Here and there in ravine tracts or near house-sites, ancient cane-crushing mills of stone lie half buried, evidence of a gradual desiccation which has bereft the region of its former prosperity. In other districts, however, the cane-growing area has increased, and since the construction of Sarda Canal has nearly doubled in the province as a whole. Sugar-cane occupies about 3·6 per cent of the total cropped area of the province.

The density of cultivation in the eastern districts has now equalled that of the western divisions after a lapse of nearly three centuries, during which there has been a phenomenal expansion of agriculture and population. Not merely the percentages of irrigated and double-cropped areas to total net cropped area have exceeded those in the western divisions, but the progress of agriculture and increase of population are now accelerated. The Ganges-Gogra Doab in particular, whose development is quite recent, has shown a surprising record. The older alluvial districts, whose prosperity leapt into prominence with the introduction of the canal system, at present show but a slight increase of total net cropped area since Akbar's days. Surveying several centuries, we find that, on the whole, the advantages of rainfall and well irrigation, coupled with an

arranged succession of leguminous crops with rice, contribute to higher agricultural prosperity and greater density of population than the western districts can attain. In spite of the spell of progress introduced by canal irrigation, these latter districts are now left behind. Within the last few centuries, deforestation and the increase of ravine and alkali lands have reacted unfavourably upon the soil fertility in the older alluvial tracts. It is probable also that the rainfall has become more deficient and more unevenly distributed than before. Thus the progress of the eastern districts is due to more economic causes than one.

We thus see that climate, rainfall, and soil are responsible for a greater expansion of agriculture and population in the eastern districts of the United Provinces than the facilities of science and irrigation could achieve in the western. The introduction of new varieties of wheat and sugar-cane is associated with the spell of prosperity of the Upper Doab. In the whole province about 16 lakhs out of 77 lakhs of acres are sown with improved varieties of wheat, mainly Pusa varieties. The yield of wheat in the United Provinces has been 1,000 lb. per acre in irrigated lands and 900 lb. per acre on an average. This may be compared with the Punjab yield of 1,178 lb. and Great Britain's yield of about 1,845 lb. per acre. Accurate data for comparison of

present with past out-turns are not available; but it is significant that wheat yields in the United Provinces show a tendency to decrease, rather than to increase, since historical times, as the following figures would indicate[1]:

Average yield of wheat per acre in lb.		Source of information
Akbar's times	1,555	Aiyan-i-Akbari
1827–40	1,000 (irrigated) 620 (non-irrigated)	Thornton's *Settlement Report of Muzaffarnagar*
1917–21	1,280 (irrigated) 840 (non-irrigated)	Later *Settlement Report of Muzaffarnagar*
1931	1,000 (irrigated) 900 (average)	"Average Yield of Crops in India," *Quinquennial Report*

As regards sugar-cane, not merely has there been an expansion of this crop, but about 70 per cent of the sugar-cane area is planted with heavier-yielding varieties in the more important sugar-producing districts. The yield here has been slightly more than doubled. Yet the present yield of crops is much lower than that in Europe or Java for wheat and sugar-cane, while as regards millets, which are widely grown in areas of precarious rainfall in the United Provinces, very little improvement has been achieved. Cotton in the United Provinces is only an admixture of strains, and consequently its value for grading and standardisation is much less than in the Punjab and Western India. The millets of the United Provinces, which, rather than wheat, must be regarded as the staple food of the peasantry,

[1] Mukerjee, *Rural Economy of India.*

have derived, however, but little benefit from scientific breeding and selection. Lastly, the breeding of crop varieties resistant to disease and drought has not made much appreciable progress in India, and work on the evolution of types of wheat, for instance, having special powers of resistance to deficiency of moisture is specially necessary in Northern India.

Nor is it often realised that there is a limitation to the improvement of crops by plant breeding and the introduction of new crops. That limitation depends upon the indigenous agricultural practice. A heavier-yielding type must make greater demands on the soil, and its introduction is to be accompanied by a change in the local system of agriculture, which will enable the soil to regain its fertility. Unless this is done, the yield of the new type must inevitably deteriorate until a new balance is struck between crop production and regeneration of soil fertility. This balance will probably come somewhere about the level of the old yield of local crop.[1] Further, there are economic difficulties in the way of the adoption of the improved crops and agricultural practices. In many parts of India, such as the north-western region of United Provinces, the central portion of the Punjab and Berar, subsistence farming may be said to have been superseded by the cultivation of money-crops ; but, even where

[1] *Report of the Royal Agricultural Commission*, Evidence, Vol. I.

commercial crops are grown in large quantities, it is the customary routine of agriculture which is now preventing the specialisation of crops needed for agricultural improvement. Inadequate means of transport, as well as lack of facilities of credit, are also standing in the way of fuller adjustment of crops and crop rotation to their value in the markets. No doubt such valuable crops as cotton, jute, sugar-cane, and tobacco may grow much more beyond areas to which they are at present confined. The findings of farm accountancy may be of no avail if the peasant has to hypothecate his crops beforehand to the creditor, and, indeed, such crops as sugar-cane and tobacco would have expanded much further but for the scarcity of credit in the country-side. In the last few decades, no doubt, the out-turn, especially of several paying crops, has improved, but such improvement is yet confined to small areas within the radius of the Upper Ganges Canal, and scientific research and extension development. Clarke's estimate that within the next two or three decades the out-turn of the cropped area may be increased by 30 per cent in normal seasons appears to be too ambitious.[1] Indian soils, no doubt, show an extraordinary response to better treatment, but the ancient cropping and agricultural practice have established a working equilibrium

[1] *Proceedings of the Seventeenth Indian Science Congress*, p. 34.

between yield and soil-recuperative capacity. This makes it difficult to maintain a heavy yield under the existing tillage and crop rotation, except in superior soils. In various districts the cultivated area has also expanded by the reclamation of fallow lands, lands in the ravine, marshes, *ushar*, and sandy patches. The double-cropped areas have continually increased, accompanied sometimes by soil depletion due to the absence of fallowing for successive seasons, and sometimes by a better type of tillage, manuring, and a more careful utilisation of water derived from wells.

Another very important improvement in agricultural practice is indicated by the substitution of rice and maize for cheaper millets, and of cereals for gram and oil-seeds, and by the spread of double-cropping in fields where the rotation of rice and peas was observed, especially in the eastern districts.[1] During the last few decades of agricultural expansion in the province, the population pressure contributed to the reclamation of inferior lands and the extension of double-cropping. Where there has been no increase, or an actual decrease, in the net cultivated area, double-cropping has served, indeed, as a safety valve in the face of multiplying numbers. But of late the extension of agriculture in the province

[1] J. K. Mathur, *Pressure of Population in Gorakhpur District*; and B. B. Misra, *Overpopulation in Jaunpur*.

has received a set-back which is a matter of serious concern, as population during the last decade has increased from forty-six to forty-nine millions. On the whole, the normal net cultivated area of the province has actually declined between 1921–31. The Indo-Gangetic Plain, West, shows a decrease of about 3 per cent in the net cultivated area and a slightly smaller decrease in the double-cropped area. The Indo-Gangetic Plain, Central, shows a decrease of 3 per cent in the net cultivated area and a decrease of 6 per cent in the double-cropped area. The Indo-Gangetic Plain, East, shows an increase of 2 per cent in the net cultivated area and a decrease of 9 per cent in the double-cropped area, the gross cultivated area showing a very slight decrease on the balance. The Sub-Himalaya, West, shows a decrease of about 2 per cent in the net cultivated area, but an increase of 18 per cent in the double-cropped area has resulted in a slight increase in the gross cultivated area—such increase being associated with the extension of irrigation facilities. The Sub-Himalaya, East, shows an increase of a little over 1 per cent in the net cultivated area and an increase of 9 per cent in the double-cropped area.[1] The following table is compiled from the appropriate tables from the census reports of 1911, 1921, and 1931.

[1] *Census Report of the United Provinces*, pp. 36–7.

	Percentage of cultivated to cultivable area			Percentage of double-cropped to cultivable area		
	1911	1921	1931	1911	1921	1931
Indo-Gangetic Plain, West .	89·2	78·3	76·1	14·7	13·8	13·5
„ „ Central	87·8	73·7	71·6	17·7	17·9	16·8
„ „ East .	86·7	78·2	79·8	20·5	20·9	19·1
Sub-Himalaya, West . .	83·5	69·0	68·5	17·9	13·5	15·9
„ East . .	79	78·5	79·6	26·1	26·0	28·3

During the decade 1921–31 the decrease of the number of ploughs and working cattle is also a matter of some concern. In some of the eastern districts there is a chronic scarcity of fodder and the heavy population-pressure is encouraging the same tendency towards the employment of less bullock-power and more child and woman labour in field operations as is evident in some of the congested districts in China.

	Working cattle per hundred ploughs		Acres of normal net cultivated area per plough	
	1920	1930	1920	1930
Indo-Gangetic Plain, West .	218	213	9·86	9·77
„ „ Central	212	208	5·78	5·72
„ „ East .	199	200	5·56	5·09
Sub-Himalaya, West . .	286	277	7·74	7·61
„ East . .	222	211	5·92	5·49

This brings us to the problems of fractionalisation and scatteredness of holdings in the province. Fifty-six per cent of all tenants and peasant proprietors in the province possess under-sized holdings. This is the finding of the Banking Enquiry Committee, which has further found that holdings smaller than five acres bear a heavier burden of debt in relation

to their capacity to repayment in contrast to bigger holdings, and that such debts are cumulatively on the increase. The potentialities of scientific cultivation which would mean investment for better seeds and better fertilisers are nil in the case of peasants, whose holdings are uneconomic and who in average years have no surplus. The data collected by the Banking Enquiry Committee may be summarised in the following table :

Minimum economic and average holding in the United Provinces[1]

	Minimum economic Holding		Average holding	Percentage of average to minimum economic holding	
Division.	*Statutory*	*Occupancy*		*Statutory*	*Occupancy*
Meerut . .	5·5	4·6	7·8	142	142
Jhansi . .	10·0	9·6	13·1	131	146
Gorakhpur . .	4·0	3·9	3·8	95	7
Lucknow . .	4·7	—	7·2	153	—

It is clear that the average holding in the Gorakhpur division is actually below the minimum economic holding. In the district of Jaunpur the average size of a tenant's holding is even lower, 3·5 acres. In the Gorakhpur district, in *pargana* Sidhua Jobna, the average holding was found at the time of the last settlement to be only 1·3 acres ; in Hata it was 0.9 acres, and in Salimpur 0·65 acres. It is probable that in such districts as Jaunpur and Gorakhpur, several *thanas* of which exhibit some of the highest records of rural density, more than half the cultivators possess uneconomic

[1] *Report of the Banking Enquiry Committee*, p. 25.

holdings in which they are working at a loss. Such holdings, tiny as they are, are made up of small plots scattered all over the village.

No doubt both fractionalisation of holdings as well as their "pepper-pot" distribution seriously impede intensive cultivation. More than anything else it is the under-sized holding which is chiefly responsible for agricultural backwardness and even for wasteful utilisation of land. In areas of dense population the cultivator who cannot afford to provide fertilisers, and burns his cow-dung on account of the lack of fuel, cannot also afford to provide lengthy periods of rest to the soil for fresh supplies of nitrates and micro-organisms to develop.

In many areas the wheat yields show a decrease, and it is probable that the recent decrease in the double-cropped area is a sign of exhaustion of under-sized holdings brought about by the ceaseless cycle of *rabi* and *kharif* cropping, season in and season out with no rest, which only rich soils can endure.

But, due to an increase in population, fractionalisation still proceeds apace, though figures relating to this are not easily obtainable. Some, however, have been adduced by me in the Banking Enquiry Report, United Provinces. In one district, 37 per cent of holdings are now $2\frac{1}{2}$ acres or less. Sixty years ago

the figure was 23 per cent. The minimum economic holding there lies between 4 and 5 acres. Such fractionalisation, if allowed to proceed unchecked, will ultimately restrain the cultivator, not only from adopting improved agricultural practices, but also even from intensive farming, in which lies the greatest hope of enabling him to meet from his tiny holding his family requirements. Throughout the Ganges Valley a high rural density and a high proportion of double-cropped area go together. Now, however, the evidence is forthcoming that intensive farming in tiny plots has meant such haste and imperfect tillage or drain on the soil, especially in the case of adoption of sugar-cane or cotton cultivation, that double-cropping decreases, providing the soil the needed rest, which the ordinary standard rotation of *rabi* and *kharif* alternately, by which the *rabi* is followed by about three months' rest and *kharif* by about ten months', did not disregard. In the absence of manuring, the accumulation of nitrates and the activity of micro-organisms in the soils of the United Provinces—provided that rest was given to the soil—preserved in large measure the balance between the intake of the crops and the recuperation of the soil. The introduction especially of cultivation of sugar-cane, which is in the field during both *rabi* and *kharif*, is fraught with the danger of disturbing

the established balance between crop production and natural replenishment of the soil. It is to this situation that the peasant has responded in some measure by curtailing his double-cropped area. During the last thirty years the proportion of double-cropped to the cultivable area has shown a continuous decline in all the natural regions. Thus, while the limit has been reached in the direction of extensive farming, as indicated by the cultivated area representing more than three-fourths of estimated cultivable area in most districts, a fresh limit in the operation of diminishing returns now intervenes, reducing in more than one district the area cropped more than once. Take, for instance, Jaunpur, whose double-cropped area is one of the largest in the United Provinces, forming about a quarter of the total cropped area of the district, and is limited by the nature of the soil and agricultural water-supply. Between 1896 and 1916 the double-cropped area, no doubt, increased from 142,192 acres to 193,803 acres, but since that year the figure has not shown any expansion, the areas being 167,996 and 182,130 acres in 1927 and 1929 respectively. In 1931 the area declined still further to 172,071.

The law of diminishing returns operates, not merely by the soil, but also by the water acting as the limiting agent in agricultural

production and contributing towards a keener struggle for existence and lower standard of living and vitality of a people whose multiplication has known no limits. While the limits of canal and well irrigation have been approached in the upper and middle valley so far as the existing technique and bullock power at the command of the peasantry are concerned, the gradual decline of the water-table, accelerated after a series of drought years, not only increases the strain on human and cattle power, but also diminishes its returns proportionately.[1] Thus the robbery of the soil and sub-soil water, a response to the increasing population pressure, rewards human and cattle toil less and less. Everywhere the density of population, district by district, has increased at greater pace than the proportion of land which is cultivated and the proportion of area cropped more than once. In many districts the expansion of agriculture has slackened between 1921 and 1931, and in many both the net cultivated as well as twice-cropped areas have shown remarkable decreases. On the other hand, the population, which slackened in its growth towards the end of the last century, has shown a fresh spurt between 1921 and 1931. This implies a tendency towards greater soil exhaustion and lower standards of farming and

[1] Mukerjee, "Limits of Irrigation in the United Provinces," *Report of the Royal Commission on Agriculture*, Evidence, United Provinces Volume.

living. The agricultural situation, even in the Upper Ganges Doab, which during the last half-century has enormously added to its agricultural wealth and resources through the application of science to farming and irrigation, is by no means bright, due to this maladjustment between population and food-supply, as is evident from the following table :

Name of District	Percentage of increase of total cropped area 1891–1921	1921–31	Percentage of increase of density 1891–1921	1921–31
In the Upper Ganges Valley :				
Saharanpur	+ 2·1	− 0·6	− 6·2	+11·4
Muzaffarnagar	+ 8·7	+ 2·7	+ 4·1	+12·7
Meerut	+ 7·2	− 1·1	+ 9·0	+ 6·9
Bulandshahr	+ 6·2	+ 2·02	+13·5	+ 6·6
Aligarh	− 1·71	+ 1·9	+ 3·3	+10·4
Muttra	− 3·3	+ 6·5	−12·7	+ 7·9
Agra	+ 4·3	+ 1·7	− 7·5	+13·4
Mainpuri	+ 0·9	−15·2	− 1·2	+ 0·2
Etah	+20·03	− 0·96	+19·2	+ 3·7
Etawah	+ 4·5	− 0·95	+ 1·6	+ 1·7
In the south-west :				
Jalaun	+10·8	−2·2	+2·3	+5·1

The effect is, however, most apparent in those parts of the valley where the water-supply, which is the life of agriculture, is naturally deficient or exposed to violent seasonal fluctuations. Such effects will also be found to operate over more or less contiguous blocks—that is, natural entities—where the temperature and water-supply bring about a similarity of geographical and other physical characteristics. We find that the south-western portion of the Ganges-Jumna Doab which

fringes the semi-arid tract bordering the Great Desert has shown a decrease of density within the last three decades. It is most interesting to note that in the dry steppe-tract of this province, where the "index of aridity" is below 22 or 23, the artificial protection of agriculture by the upper and more reliable portions of the Ganges and Jumna Canals could not keep up the increase of population of the earlier period.[1]

Of all areas in the United Provinces, the districts of Aligarh, Muttra, Agra, and Jalaun exhibit the largest fluctuations of cropped areas from year to year, such fluctuations being the greatest in bad rainfall years. It is also noteworthy that the canal-irrigated districts follow the unprotected districts closely as regards the variations of cropped area. This indicates that canal irrigation can assure no better certainty of crops under the conditions of a precarious rainfall than is available for the unprotected districts. This is mainly due to the increase of total cropped area as a result of the pressure of population, so that the amount of water which may be supplied by the canals is inadequate in years of unfavourable rainfall. A large amount of reclaimed land is also unsuitable for irrigation. In these particular districts the

[1] Martonne's index of aridity

$$= \frac{\text{Annual precipitation in millimetres}}{\text{Mean annual temperature in degrees Centigrade} + 10}$$

Population Density (persons per square mile)

District	Index of aridity	1865	1872	1881	1891	1901	1911	1921	1931	Actual variation in mean density between 1901–31
Dry steppe :										
Muttra	15·5	498	551	463	492	526	452	427	461	−65
Aligarh	17·0	498	547	525	536	617	599	546	602	−15
Agra	17·0	533	575	525	541	572	551	498	567	− 5
Etah	18·2	437	465	438	406	500	504	483	501	+ 1
Prairie :										
Jalaun	—	262	260	270	256	258	261	262	275	+17
Mainpuri	21·2	420	452	478	455	495	476	447	448	−51
Etawah	21·5	384	395	427	430	477	449	434	442	−35
Cawnpore	22·9	504	495	498	510	531	482	485	512	−19
Unao	19·5	537	554	503	534	546	510	458	479	−67
Bulandshahr	21	420	490	485	498	597	590	562	595	− 2
Meerut	21·2	513	541	560	593	657	648	653	699	+42
Muzaffarnagar	22·0	414	416	453	462	524	483	479	541	+17

shrinkage of cultivated area and decrease of population density seem to go together, giving evidence of a losing battle with unfavourable hydrographical conditions.

Professor Pearl laid down the demographic law that when population density reaches an equilibrium-point the death-rate exceeds the birth-rate, and we have a decline of population until the equilibrium is restored. We have an interesting corroboration of Professor Pearl's principle from some areas of the Ganges Plain. It would appear from the movement of the birth- and death-rates of Muttra, Agra, Aligarh Etawah, etc., that mortality tends to be increasingly higher than natality. Of course, different districts would reach the saturation density in different decades due to different conditions of agricultural water-supply, and thus the decrease of population density has not been uniform. Such decrease of density has been seen with or without a shrinkage of the total area cropped in the district.[1]

The eastern districts of the United Provinces, which enjoy a more reliable rainfall than those of the south and west, multiplied in such large numbers that their position has also become equally precarious so far as the maintenance of the present standard of living, and even of

[1] Mukerjee, "Population Balance and Optimum," *Proceedings of the International Population Congress*, Rome, 1932, "The Environmental Control of Population Movement in Northern India," *Acharyya Roy Commemoration Volume*.

numbers, is concerned. In their cases, too, density of population primarily depends upon the proportion of land which is cropped more than once, the percentage of net cultivated area having reached nearly 80 per cent of the cultivable area. Notwithstanding the excellent and timely insurance against the distress of a famine, which these districts provide by an extended system of well irrigation and which explains much smaller shrinkage of cropped areas in famine years than in the south and west, the density of population here also shows a tendency to decrease. This is shown in the table overleaf.

The table shows no doubt a steady tendency towards expansion of total area cropped, but the expansion of population density is disproportionately large in the cases of newer districts like Gorakhpur and Basti. This will be evident from the following figures :

Mean Density

	1881	1891	1901	1911	1921	1931
Gorakhpur	574	657	649	707	722	787
Basti	582	637	659	653	687	737
Benares	885	914	875	890	899	930
Azamgarh	733	790	700	675	691	710
Jaunpur	780	816	776	746	745	797

If Benares, Azamgarh, and Jaunpur show a decline in their density of population from 1891 to 1921—in spite of a steady extension in the total area cropped (including area cropped more than once) and an extension of well

Districts	Percentage of area cropped more than once to total cultivated area	Percentage of well-irrigated to total irrigable area in the last famine year 1918–19	Percentage of increase of total cropped area, including area cropped more than once 1891–1921	1921–31	Percentage variation of density 1891–1901	1901–11	1911–21	1891–1921	1921–31
Gorakhpur	32·8	52	+ 4·7	+ 1·2	− 1·2	+ 8·9	+ 2·1	+ 9	+9·2
Basti	37·3	34	+ 8·9	+2·08	+ 3·4	+ 0·9	+ 5·2	+ 8	+7·8
Azamgarh	26·2	57	+15·7	+ 1·3	−11·4	− 3·6	+ 2·4	−13	+2·8
Jaunpur	25·6	86	+ 4·7	+ 2·9	− 4·9	− 3·9	− 0·1	− 9	+7·0
Benares	22·8	92	+24·7	+12·1	− 4·7	+ 1·1	+ 1·8	− 2	+6·8
Ballia	24·6	55	+15·6	− 1·7	− 0·8	−14·3	− 1·7	−15	+9·9
Ghazipur	16·9	45	+ 4·4	− 2·8	−10·8	− 8·1	− 0·9	−19	+5·6

irrigation which in years of drought have reached the phenomenal figures of 95, 93, and 82 per cent, respectively, to estimated irrigable area—does it not support the inference that, due to the enormous pressure of population on the land, man's efforts are here showing a diminishing return, and population is reaching a set-back?

It is only the districts north of the Ghagra, which are naturally protected by a heavy and reliable rainfall and where irrigation is easy on account of the high water-level, that are still maintaining an increase of population. During the thirty years 1891–1921, the density of population in Gorakhpur and in Basti increased four and two and a half times respectively more than the total net cropped area (including double-cropped area). Obviously the very multiplication of population will sooner or later bring them into line with the southern and eastern districts, where the phenomenon of decrease of population and a lowering of the standard of living would not have been experienced under favourable conditions of soil and water-supply but for redundancy of mouths to feed.

It is in this manner that we realise that, if we take several decades, the effects of variations caused by disease, such as plague, malaria, and influenza, might be minimised, and the variations would reflect permanent tendencies. A tendency towards a shrinkage of population

has appeared even in the most favoured areas of the world. Towards the south and the west of the plain, this has been due predominantly to arid conditions, and also to famine—which these conditions imply, in years of a deficient or irregular rainfall. In the middle and eastern portions, this shrinkage simply indicates that the optimum density of population has been overstepped ; thus the least variation of the amount and distribution of rainfall, which would not have had any effect if these portions were less heavily populated, now has violent reactions.

These reactions on man's numbers and his standard of living are visible also in Bihar, and these diminish in their potency as we reach Bengal.

In Bihar the symptoms of over-population are also clearly visible. A succession of good harvests is followed, as in the United Provinces, by an increase in the number of births and a gradual fall of mortality. When the harvests are short and the prices of food-grains rule high, the birth-rate rapidly declines and the mortality rises.

Throughout a large portion of Bihar the volume of emigration also corresponds to the state of the harvests. If the harvests are good, the emigration diminishes ; if they are bad, it is greater and lasts longer. The close adjustment of human numbers to the food-supply is

clearly shown, not only by such phenomena, but also by the correspondence between rural density and the percentages of double-cropped area to total cultivated area, the latter assuming a phenomenal figure district by district.

As in some of the congested eastern tracts of the United Provinces, several districts in Bihar show a striking reduction in double-cropped areas. As the holding gets smaller and smaller, due to the multiplication of population, the soil is not given any rest, which in the long run unfavourably affects the productivity of the holding as a whole. This, as well as a series of recent droughts, explains the reductions of the double-cropped areas as given below, all the districts showing a remarkable expansion between 1891–1921, and then a decrease.

Area cropped more than once

	1891	1921	1931
Saran . .	281,837	692,400	377,000
Champaran .	247,488	603,700	600,700
Patna . .	119,600	336,900	326,100

The table on p. 188 shows that the density of population depends upon the proportion of land which is cultivated and upon the proportion of double-cropped area, and that the density of population increases at a greater rate than these proportions. This indicates that the law of diminishing returns is operating. Indeed, the slightest disturbance of agriculture brings

District and natural area	Percentage to cultivable area of: net-cultivated	double-cropped	Percentage variation of total area cropped (including area cropped more than once) between: 1891–1921	1921–31	Percentage variation of density 1891–1921	1921–1931
North Bihar:						
Muzaffarpur	81·5	55·3	+15·8	+ 6·9	+ 1·5	+ 6·8
Saran	72·6	44·4	+10·0	−13·1	− 5·1	+ 6·3
Darbhanga	85·7	31·2	+ 5·37	−19·1	+ 3·9	+ 8·7
Bhagalpur	64·7	22·8	−12·0	− 6·9	+ 0·3	+ 9·9
Purnea	59·9	11·6	+ 8·7	−15·8	+ 4·7	+ 8·2
South Bihar:						
Patna	64·7	29·0	− 1·6	+12·6	−11·3	+17·1
Shahabad	76·4	16·1	+11·2	+ 5·2	−12·3	+ 9·9
Monghyr	73·4	21·6	+10·75	− 3·4	+ 4·7	+12·7

about conditions of famine and scarcity in a large portion of heavily populated North Bihar.

The net cultivated areas between 1891–1931 show enormous fluctuations in Bihar districts. This indicates a more precarious agriculture than that of the eastern districts in the United Provinces, for instance, where the climate and rainfall are similar to Bihar. The difference is due solely to the fact that wells that have proved a useful and valuable resource in bad rainfall years in the United Provinces do not exist in such large numbers in Bihar. It is noteworthy that Bhagalpur, which shows most violent oscillations and a tendency towards permanent shrinkage of cultivated area, is least equipped with the well system of irrigation, and yet most dependent upon rainfall for her early monsoon crop.

All the more heavily populated districts in Bihar now exhibit a tendency towards stationary condition or even decline in the density of population : the cultivated area shows fluctuations, and the precariousness of agriculture has already left its impress upon declining numbers.

One way of a better agricultural adjustment consists in the growth of vegetables as well as the improvement of milk and milk products. Some of the undersized holdings near the towns in the United Provinces and Bihar grow little of staple food, and make large profits out of fruits, vegetables, and flowers. Fruit culture

and market-gardening are, indeed, two important directions in which the solution of the problems of uneconomic holdings will be found for the congested districts of the Ganges Plain. The peasant in the congested districts, cultivating the tiny holdings, hardly works for more than six months in the year. In the off season, the cultivator's family can barely find employment in the field for one or two hours a day. Low agricultural income and agricultural idleness thus often go together, and, as a result, either the non-cultivating money-lending classes or the landless labourers, or both, grow at the expense of small proprietors and tenants. Such a situation, even if true for small areas, is full of social hazards.

Fruit-growing, market-gardening, and small-scale rural industries, adopted by the peasant either as a substitute for agriculture or as supplementary to it, may give regular employment throughout the year and relieve agricultural depression. An acre of vegetables or fruits in Benares, Basti, or Jaunpur is worth, often, ten to fifteen times the value of an acre of wheat, and the holding, which is uneconomic when it grows the ordinary staples, will be ample when it grows garden crops. Unfortunately such cultivation is chiefly in the hands of the specialised castes (Koiri, Kachhi, Murao, etc.), and the masses of agriculturists have not as yet taken to vegetable

or fruit-growing. It is also futile to grow garden crops, fruits, or flowers systematically, except in the neighbourhood of small towns, unless rapid and easy means of transport are developed. As regards subsidiary employment of cultivators, a distinction is indispensable between industries which may not be directly affected by unfavourable conditions in agriculture and those which are subsidiary to agriculture, and which share its vicissitudes. Small arts and handicrafts like sericulture, silk, wool- and rope-spinning and weaving, basket-making, toy-making, small trade, etc., may employ the four to six idle months of the agricultural year and help the peasantry to make ends meet in spite of the large size of family and uneconomic holding. The present depression in trade and industry shuts out the possibility of relief of pressure of population by emigration. Under such conditions, the slackening of agricultural expansion and actual shrinkage of double-cropped area in the face of a considerable increase of population during the decade 1921–31 must be viewed with apprehension.

It would seem most desirable that in order to combat the operation of diminishing returns, and the consequent tendency towards a keener struggle for existence and lower standard of living of the peasantry :

(*a*) The peasantry should be educated as

soon as possible in the use of contraceptive methods ;

(*b*) Every possible step should be taken as regards the reclamation of sandy, *ushar*, and ravine stretches of land. Suitable fodder and crop production, as well as controlled and regulated grazing, would prevent further increase of arid conditions ;

(*c*) A systematic policy of village afforestation and pasture management is called for in large parts of the plain, where "the crime against trees" and grasses has reached the point of destroying the equilibrium between the factors determining the climate and hydrographical conditions, thereby imperilling its agricultural future ;

(*d*) Since the limits of canal irrigation from river flow seem to have been already reached, the possibilities of pumping water from rivers and low-level canals, as well as from tube and open wells, by hydro-electric developments should be explored and utilised wherever feasible ;

(*e*) Every possible effort should be made to prevent the abuse of water from canals, with reference particularly to wheat and sugar-cane ; to check loss of water lifted from wells, due to evaporation and percolation, by lining the channels with roof tiles ; to construct field and ravine embankment for the purpose of storing the monsoon accumulation ; and,

finally, to check the process of desiccation which has commenced in certain areas by the introduction of defensive vegetative growth ;

(*f*) To establish such a rotation with exhausting crops like wheat and sugar-cane, and to use such manures, including every kind of organic waste, which may ultimately enable the soil to replenish its fertility and retain the level of the old yield of the local crops.

We have seen that the present population pressure has speeded up the limits of cultivation and irrigation. The shrinkage of the double-cropped area and the cessation of agricultural expansion, as well as the reduction of the water-level, are the inevitable symptoms of the loss of ecologic balance of population, land, and water. It is in this manner that man's improvidence has frustrated the achievements of science in agriculture and water-supply, and it is on science, again, in its application towards the control of man's reproduction, that we must have to depend mainly for a relief from the present depressed conditions in agriculture.

In another part of the valley not merely did science bring little aid to man in obtaining his livelihood from the soil, but the unscientific handling of water and drainage problems has contributed to an agricultural decadence almost unprecedented in the world. "There are parts of Bengal," wrote Ditcher in the *Capital*, "which the Government of India found a

garden and left a desert—and Bengal, as an administrative and economic unit, never recovered from the grave economic injury thus inflicted."

"After man—the desert," is the sequence that exhibits the recurrent tragedy of civilisation, in warm regions such as Mesopotamia and the Indus Valley, caused by centuries of man's crime against vegetation and consequent desiccation. "After man—the marsh and the mosquito," exhibits the tragedy that recurs in well-watered lands, and faces Bengal to-day, on account of man's long-continued crime against the rivers.

In 1670, Bowrey came to Bengal, described her "many fairy villages, gardens, and fields on the great rivers—Ganges and many large and fair arms thereof," and referred to the Dutch, English, and Portuguese merchants trading in her rich and variegated agricultural products with Persia, China, and South Seas. Just a century later (1770) the Damodar left its old channel which joined the Bhagirathi at Katwa and swerved to the west, thus sealing the doom of Western Bengal. Half a century later the rapid decline of the Bhagirathi and the other Nadia rivers was strikingly evident. In 1870, the Burdwan fever, starting from Jessore, the heart of the dead-rivers area, was making its malignant tour through Central and Western Bengal, decimating millions.

To-day, after the lapse of another half a century and thirty years, an expert Irrigation Department Committee apprehend that deterioration has already proceeded so far in Central Bengal that it cannot be checked, and that " the tract is doomed to revert, gradually, to swamp and jungle." By 1970 the extension of swamp and jungle in the hinterland of Calcutta, and the contamination caused by the silting up of the local deltaic channels used for the removal of sewerage, may seal the doom of the " City of Palaces."

Upon a region which represents about two-fifths of the total area of Bengal, the mosquito has descended and conquered, with the result that the decline of agriculture, spread of jungle and malaria, and desertion and enfeeblement of the population by recurrent attacks of the disease, are found in a nefarious combination which easily defeats the agricultural officer, the economist, and the sanitarian alike.

But for the sudden deflection of the Jamuna, the lands washed by which in Northern Bengal take the character of the lands of the lower delta and support a thick population, this region, which has suffered from great interference of natural drainage by the railway embankment, would have also shown greater approximation to the decadent condition in the south.

In a deltaic area, the streamlets or *khals*

which wind through homesteads and fields serve a double purpose: in the monsoon season these serve as irrigation channels, fertilising the country with the red waters, while in winter these act as discharge channels, providing for natural drainage and flushing or scour. In whatever parts of Bengal the free river spill has been restricted by river, road, and railway embankments, the cultivated areas as well as harvests, deprived of the red waters, have diminished, malaria has increased, and the rivers and *khals* have silted up.

Even in parts of Faridpore, Dacca, and Mymensingh—where there is no decline of delta rivers—roads, railways, and embankments have disorganised the system of lateral spill basins, and introduced malaria and agricultural depression. Mymensingh is likewise suffering from moribund river and obstructed drainage, causing early floods and great reduction of the Aman crop. The outward thrust of the Mymensinghias into the virgin fields of Assam is in no small measure due to depressed agriculture. The more disastrous floods in Northern Bengal are a periodical menace.

The agricultural shrinkage in Central and Western Bengal has been unprecedented in its magnitude and rapidity. About half the cultivated area has ceased to be ploughed in Burdwan and Hooghly, and still the area is

shrinking. Even in Rajshahi, the percentage of cultivated to cultivable area has gone down from 75 to 56 per cent during the last ten years. Depopulation and the large quantity of cultivable land left fallow and covered with jungle attract the Mundas, Oraons, Santals, and Bauris to Burdwan, Hooghly, Jessore, and Nadia. The backbone of agriculture in large parts of Burdwan and Hooghly is now the immigrant aboriginal.

While the immigrant aboriginal population is the mainstay of agriculture, the immigrant labour force, chiefly from Bihar and the United Provinces, has introduced a new lease of life to the Raneeganj coal area and along the river Hooghly, animated by the touch of industrialism. The loss of economic balance in Western Bengal due to decadent agriculture may be largely offset by rapid industrialisation which would be promoted by restoration to Bengal of all the mining areas which had formerly belonged to this province.

It is indispensable to survey, district by district, the problems of obstructed drainage, flood, and river-control in different areas of the delta. The extent of, and the prevention of, erosion in the catchment areas of the important rivers, and the related questions of afforestation and swamp-land reclamation, as well as the effects of canal irrigation on the river flow in the United Provinces and Bihar, must also

be enquired into. It is estimated that a maximum amount of 10,000 cusecs is abstracted from the Ganges by all the Ganges canals—about 15 or 20 per cent of the total discharge. If we add to this the amount taken away by the Sarda Canal system, we would realise the effect of the low-water levels in the lower reaches of the plain since the canals were constructed. There has been, probably, a general reduction of the level of the Ganges by two feet, which has thereby increased the difficulty of maintaining the entrances of the feeders open to the Ganges.

It is desirable that the assistance of irrigation engineers who have experience of similar problems in the United States, Holland, and Russia should be sought. Secondly, a complete hydraulic survey of the decadent areas should forthwith be undertaken. Thirdly, the Government or the Waterways Trust should raise an initial loan of Rs. 1 crore to combat the menace of obstructed drainage, agricultural depression, and malaria affecting about two-thirds of the total area of Bengal. Fourthly, the Irrigation, Co-operative, Health, and Agriculture Departments, as well as municipalities, district and union boards, should now concentrate and co-ordinate their activities in certain selected areas where the flushing of dead rivers, pools, and ponds, jungle clearance, abolition of the breeding places of mosquitoes, and mass

quininisation might be taken up simultaneously and intensively. Fifthly, such co-ordinated and simultaneous local undertakings are also imperative in the control of water-hyacinth, which is seriously affecting both navigation and agriculture in parts of the lower delta. New experiments, such as the introduction of new crops, or of new fishes in pools and depressions, may also help Bengal to eradicate malaria. It is well known that wherever clover grows in Egypt, in the Argentine, and certain reclaimed areas in Holland, there is immunity from malaria, in spite of plentiful anopheles. Certain clovers, vetches, and beans may be grown as readily in the Ganges delta as in the Nile delta, and these would not only feed the cattle, but also would ensure the country against malaria. Systematic flush irrigation is the radical remedy of agricultural decline. The restoration of basin irrigation by replenishing the choked streams and marshes would combat malaria, enrich the soil, check the present shrinkage of cropped area and yield, provide an abundant harvest of fish, and make congestion of the rivers impossible.

Thus, sound engineering, sound agriculture and sound sanitation have a common goal. In two-thirds of Bengal neglected sanitation goes hand in hand with unsound or unsuitable irrigation, the presence of rank undergrowth in swamps and of water-hyacinth in streams,

and decadent agriculture. A century and a half of human mismanagement have caused to Central and Western Bengal the loss of their far-famed health and riches, but the situation is not beyond recovery by human energy and science. The new Bengal that is arising on the banks of the Jumna, the Padma, and the Meghna covers only about one-fourth of Bengal's total area. In some districts in Eastern Bengal both cultivated area and population have expanded from 50 to 100 per cent and even more during the last half a century. In the isolated huts and itinerant settlements on chars and new clearings, the teeming population is, however, much less peaceful, stay-at-home, and literate than in Central and Western Bengal. On the whole, the peoples who are fighting what seems to be a losing battle with economic forces and malaria in Old Bengal are inferior in social traits and in the general ordering of life.

The disparity of economic progress between the moribund delta of the Ganges and the active joint delta of the Ganges and Brahmaputra rivers, where the fertility of the soil is replenished yearly by deposits of silt, will be evident even from a casual survey of the figures of density of population and net cultivated area. As in Bihar and the United Provinces, we find a correlation between double-cropping and density of population.

The districts in the moribund deltaic area in Bengal show much smaller percentages of both net cropped and twice-cropped areas and rural densities than those in the active delta.

That intensive farming has not progressed is indicated by the figures given in the following table :

Area Cropped More Than Once in the Moribund Delta

	1891	1921	1931
Burdwan	140,000	220,000	166,200
Jessore	219,600	30,800	183,300
Nadia	1,300	241,000	410,600
Hooghly	41,200	9,000	44,300
Murshidabad	227,100	99,600	241,000

Both agriculture and population in Western Bengal have received a set-back due to the cessation of the delta-building functions of the Ganges and her tributaries. The river Ganges has been advancing eastward definitely since the sixteenth century. Due probably to subsidences in the alluvial tract, the slope has become greater, and rivers have become torrential, in Western Bengal ; the deforestation of the hill-sides of Chota Nagpur and Barind also contributing to the increase of silt deposit and floods. This has necessitated embankments in the most ancient areas of settlement in Central and Western Bengal for flood protection. The effects of a natural decay of a deltaic river system have been aggravated by unscientific engineering and unsound or unscientific irrigation. The population of Bengal rose

District and natural area	Percentage of cultivated area to net cultivated crop: double crop	culti-vated crop	Percentage variation of total area cropped (including area cropped more than once) between: 1891–1921	1921–31	Density of population 1931	Percentage variation of density 1891–1921	1921–31
Moribund Delta:							
Burdwan . .	54·0	15·5	−34·9	−15·6	583	+2·9	+ 9·5
Hooghly . .	62·3	2·5	−55·7	− 3·6	938	+4·4	+ 3·1
Murshidabad .	44·5	15·2	−42·9	+44·0	656	+1·8	+10·2
Nadia . .	44·7	17·1	−15·7	− 4·4	531	−8·9	− ·8
Jessore . .	85·4	4·3	−21·8	−11·8	576	−8·3	− 2·9
Active Delta:							
Bakarganj . .	88·3	14·7	+39·5	+ 1·3	834	20·6	+12·9
Faridpur . .	97·9	14·8	+16·8	+ 4·0	1003	19·6	+ 6·4
Dacca . .	94·0	20·0	+21·6	+14·9	1256	30·8	+ 8·7
Mymensingh .	86·5	26·2	+ 3·1	+ 2·6	823	35·1	+ 6·1
Noakhali . .	87·0	31·9	+ 9·3	+ 8·0	1124	40·1	+15·9
Tippera . .	93·3	40·2	−14·4	+ 2·5	1197	43·2	+13·3

by 33 per cent between the years 1872 and 1901; between 1911 and 1921 by 2·8 per cent, and between 1921 and 1931 by 7·3 only. There have been local instances of crop failure, but nowhere in India has famine played such an insignificant part in the variation of population. Yet the population hardly maintains its natural rate of increase.

In Eastern Bengal, on the other hand, many districts have now a considerably large margin for an expansion of population. The density of rural population can still increase, and the soil can bear the increase easily. But a stage will sooner or later be reached when the capacity of agriculture will be overstepped.

The following table, which compares the distribution of land in the natural regions of Bengal, clearly shows that population is already pressing heavily on the cultivated area in Eastern Bengal. The percentages of cultivable waste and current fallow in Eastern Bengal are extraordinarily small.

	Percentage cultivable area cultivated	Percentage cultivable waste	Percentage current fallow
Eastern Bengal .	90	7	3
Northern Bengal .	71	14	5
Western Bengal .	61	26	12
Central Bengal .	58	18	24

The relations between intensive farming and high density will be more evident if we compare such percentages district by district with the proportions of double-cropped area.

	Percentage of net cultivated area to total area	Percentage of cultivable waste to net cropped area	Percentage of double-cropped to cultivable area	Percentage of current fallow to net cropped area
Faridpur .	85·7	9·5	14·8	4·0
Bakarganj .	81·1	11·6	14·7	1·6
Dacca . .	75·3	2·7	20·1	3·9
Mymensingh	61·5	11·5	4·1	2·5
Burdwan .	44·6	24·5	15·5	45·0
Hooghly .	66·5	17·5	2·5	34·9
Nadia . .	35·3	40·4	17·1	54·6
Murshidabad	39·6	46·0	15·2	64·6

Of the 8 per cent of land cultivable but not cultivated in Dacca, the most congested district in Eastern Bengal, 4 per cent is used for growing reeds, bamboos, and thatching-grass, leaving only 4 per cent of the total cultivable area as fallow and capable of cultivation. Thus 1 acre in 25 acres of land capable of bearing crops is left fallow every year. The actual current fallow in the whole district is only 14 square miles. This implies that a period of 156 years is required until every acre has been relieved of its burden of bearing its one or two annual crops. Considering the extraordinary small rest given to the land, it is surprising to see yet a further effect of the pressure on the soil in the fact that no less than 35 per cent of the cultivated area is made to bear two or more crops a year.[1]

The agricultural statistics of those districts which show the highest population density in Bengal, Bihar, and the United Provinces respectively may be compared.

[1] Ascoli: *Dacca Survey and Settlement Report.*

	Density of population		Percentage of cultivated area to cultivable area		Percentage of twice-cropped area to cultivated area		Normal rainfall		Percentage of gross cultivated area which is irrigated	
	1931	1921	1931	1921	1931	1921	1931	1921	1931	1921
Benares . . .	931	898	83·4	82·6	20·3	22·8	40	46·4	26·6	31·1
Muzaffarpur . .	969	907	82·2	92	64·8	46	45·75	40	12·5	11·4
Dacca . . .	1,265	1,148	94·8	92	18·6	35	74·3	74·72	—	—

The burden of heavy cropping year in and year out for a very thick population can only be borne in Dacca because of the annual flush and inundation by the silt-laden rivers. Yet in a few localities which are remote from the active rivers, or situated on old raised land, or water-logged, marks of agricultural deterioration are clearly in evidence. The population here has already started on the path, or is now on the verge, of decline. Indeed, the check on expansion of population commenced in the area farthest up the alluvial bed of the Padma, and the effects are gradually spreading, fan-like, from this point. The river has succeeded in raising these areas to such an extent as to destroy the internal water system, to stop the natural flushing of the area, to leave it water-logged, and to create, on the fringes of the water-logged area, a breeding-ground for malaria. Thus, higher mortality from diseases like malaria, cholera, and smallpox in these decadent areas is the surest proof of the guilt of river action, of a crime of Nature, which operates slowly but inevitably in all deltaic tracts. But it is considered probable that the next census will show a general decrease in population in the area, though it is unlikely that the affected area will spread with any rapidity. In spite of the elaborate rotation of crops and the cultivation of a heavy-yielding monopoly crop like jute, which the deltaic

conditions have encouraged, the pressure of population on the land will similarly be felt elsewhere in Eastern Bengal if this phenomenal expansion of population continues unabated. Thus the contrast that districts in Eastern Bengal are still increasing their population while some in Western Bengal, with a population half as dense, have remained stationary or decreased, will slowly disappear, and the higher standard of living of the cultivator in Eastern Bengal will be brought on a level with that of the ill-fed and under-clothed peasant of Bihar and Western Bengal districts. Famine also will make its appearance, not caused by the fluctuations of rainfall but by the fluctuations of the rivers as in the alluvial plains of China, and, later on, when the river basins attain a more advanced stage of development. It is a paradox that man suffers from scarcity or famine in a fertile valley richly endowed by Nature, but the paradox is explained by the fact that where man is improvident even the most bountiful resources which are Nature's gifts fail him. To Nature's gifts of favourable rainfall and inexhaustible fertility, man might add his own contributions, such as artificial irrigation, and intensive farming, or the cultivation of non-food crops which command a profitable market abroad, but if he commits crime against his generation neither Nature's blessings nor his own efforts

may be of any avail. Until the fundamental laws of population are understood by the general masses poverty will continue in the midst of plenty, and the struggle for food bring about the same ecologic adjustment as is witnessed in a rigorous and hostile environment.

The three crowded provinces of the Ganges Valley, which maintain more than the total population of Germany, France, and Belgium, have all increased in population as shown below.

	Population in millions 1921	1931	Rate of increase
United Provinces	46	49	6·7
Bihar (excluding Chota Nagpur and Orissa)	23	25	9·7
Bengal	46	51	7·3

Such an increase of population, leading to a progressive fractionalisation of holdings and impoverishment of the peasantry, has not been accompanied by any marked increase of productivity of soil through improved agricultural practices.

On the other hand, there has been a definite tendency towards a decrease of the double-cropped area throughout the Ganges Valley, especially accelerated by a series of droughts. Another reason why agricultural productivity has not increased is the loss of hydrographical balance, marked by an increase of arid conditions and the invasion of sands, especially in the Jumna areas, which has betokened an

agricultural catastrophe. Nor has there been any extension of cultivation, the limit in this direction having been reached long ago. Throughout the Ganges Valley the riparian tracts have been centres of high rural density for centuries, and the course of agricultural expansion has followed the forest line away from the rivers. In the Indo-Gangetic Plain, West Central, and East, and Sub-Himalaya, West, 75 to 80 per cent of the cultivable area has been brought under cultivation, while in North and South Bihar the proportions are 70 and 74 per cent. These figures are, however, far outstripped in Eastern Bengal. Here several districts show proportions of 90 to 96 per cent of the cultivable area which are cultivated, every available inch of the land that is fit for cultivation and not required for cultivation being, it may be said, brought under the plough or planted with fruit-bearing trees. In many areas, as early as the beginning of this century, there was an encroachment even upon the mango-groves, and little more than one acre in every 100 brought under the plough is given rest. Indeed, in the eastern districts of the United Provinces and North Bihar the limit to the extension of cultivation and the growth of population has been reached early, and the decadence of some riparian tracts has led to the shift of population, especially in North Bihar, to the rice-growing regions at a distance

from the rivers. In Bengal, however, the agricultural decadence is especially manifest in the moribund deltaic areas, where there has been an actual shrinkage, not merely of cultivated area, but also of agricultural productivity. All these represent a sharp contrast between the phenomenal expansion of population throughout the Ganges Valley in the last decade and stationary or depressed agricultural conditions. Such a contrast will be sharpened, it is expected, in the decades to come with the consequent regional unbalance of man, land, and water, bringing agriculture, and with it man, to a common doom with the region—a fate so strikingly foreshadowed to-day by the expansion of arid tracts in the Jumna region and of morass and jungle in Central and Western Bengal.

For the last twenty years the total cultivated area of India, as a whole, did not show any marked trend of increase, while population increased by as much as about 40 millions. The mechanisation of agriculture, the utilisation of animal products, the consolidation of holdings, and the rationalisation of marketing methods will long remain unrealised dreams, while conservatism stands against the use of night soil and organic wastes, which is such a dominant feature of Japanese small farming. In wheat the actual diminution of the yield from about 760 lb. per acre to 600 lb. per acre

in the last decade as well as higher costs of cultivation have been in no small measure responsible for the disappearance of India from the world's wheat market. While agriculture has been on the downward grade, the world depression has come on and nearly exhausted the Indian peasant's scant savings and capital. The export of gold may have relieved the financial position of the Government of India, but it cannot mask the central fact that such gold in large measure has been "distress" gold, and its export indicates the depletion of the Indian cultivator's capital and credit. Further, the fall in the sterling value of silver by about 50 per cent in the last decade has meant a corresponding shrinkage in his purchasing power. Yet about 400 lakhs tolas of silver were received at the Bombay mint for melting in 1931–2. The figures of sale of land, which have recently shown an alarming increase in most provinces, further testify to the stress which compels the cultivator to part with the very means of subsistence.

Among the remedial measures that need to be considered immediately are: the partial cancellation of irrecoverable agricultural debts; reduction of the decretal amount awarded by courts to the creditors by at least 25 per cent; partial suspension of the collection of rent and revenue; temporary restriction of the forced sale of land; Government intervention for the

sale of certain agricultural produce, and expenditure on public works. Such measures have been adopted for the relief of farmers in several agricultural countries in the West, and these should be considered, without further delay, in the provincial legislatures in India, to meet the present emergency.

During the last two decades, agricultural prices have continuously risen, and rents and revenues have been adjusted to the increased values of agricultural produce either by the courts or by the settlement operations, or by private enhancements of the landlords themselves. Now the pendulum has swung in the opposite direction. The peasant, on account of the competition for land, is, however, made to bear alone the loss which has accrued to the world of agriculture as a whole, while the landlord as well as the village moneylender are pressing for the same rents and the same rates of interest which agriculture could pay before the slump began. The man at the plough, who is least able to bear the burden, must not be singled out to suffer the loss. There is needed at this critical time an elastic scheme of rent and revenue determination and collection based on the schedule of prices. The same logic which calls for a reduction of the amount of the moneylender's principal and rates of interest, due to the slump of prices, also calls for a revision of the rents fixed in more

prosperous times. The determination of the economic holding region by region, and the exemption of uneconomic holdings from enhancement of rents or revenue, seems also to be a most desirable step to enable the peasant to tide over the storm. The State, the landlord, and the moneylender should equally exercise forbearance and prevent an utter collapse of agriculture, due to loss of credit and staying power of the peasant, and this would justify emergency legislation which would curtail economic freedom in the spheres of agricultural moneylending and the transfer and ownership of land appropriate for more spacious times.

A succession of drought years recurs in Northern India about every twelve years. We are now witnessing the pulse of deficient and irregularly distributed monsoons. The years 1933 and 1934 are expected to be more unfavourable years, an apprehension which is borne out by the occurrence of famine in scattered areas in the north. If drought years follow the present slump, the standard of living of the peasantry will be lowered still further.

Nor is the trade outlook bright or clear. The Ottawa agreement introduced India to a new affiliation in trade. During the last two years the Empire market has been absorbing a greater proportion of our exports, and the balance of

India's trade with foreign countries has been declining. But we cannot forecast trends of trade, especially in these uncertain years. The relative decline in the volume of India's trade with non-Empire countries was due in large measure to the reparations, the instability of prices and exchanges, and the fall of world prices of raw materials and grains. If tariff restrictions, reprisals, and discriminations continue, it will be advantageous for India to strengthen her inter-Imperial economic connections, assured by a stable, though at the beginning a limited, market, and to harden the currency-credit block under the protection of Great Britain, free from the domination of gold which could effectively limit price fluctuations.

If, on the other hand, world economic planning, as envisaged for the World Economic Conference, succeeds in establishing stability of prices and exchanges, and removing tariff barriers in the world, the Ottawa Agreement will prove to be a stumbling-block in the way of that economic internationalism which alone could permanently restore free trade and the world's purchasing power. It is, indeed, difficult to gauge the probabilities of success of either Imperial or international economic planning in view of the political issues that are involved.

Taking the Ottawa Agreement as a settled fact, it is essential that the economists of India should now consider ways and means of

employing the principle of reciprocity in such manner that India's agricultural production may be fostered. The currency and fiscal policies of the last decade have increased the real burden to the agricultural classes in India materially. On account of protective and revenue tariffs, manufactures have gained, but agriculture has lost more. It is the old conflict between the urban industrialist and the rural classes, in which the former is gaining the upper hand. The world is now passing through the first phase of an agricultural revolution, and the Indian peasant, with his uneconomical holding, his conservatism, and his load of debt, cannot face the competition in the world's agricultural markets weighed down with the new burden of protective and revenue tariffs. Agricultural protectionism—as initiated for Imperial Germany by Chancellor von Bülow, and, in an even wider sense of the term, including the rationalisation of agricultural production, prices, and marketing, of land tenures and revenue policies—ought to be the chief feature of a planned Indian economy in order that her level of agriculture may be raised to the standard of her competitors. "Agricultural protectionism" would be the economic watchword in India of the future in order that India can emerge successfully from the present depression and enter hopefully upon a period of continued prosperity and progress.

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